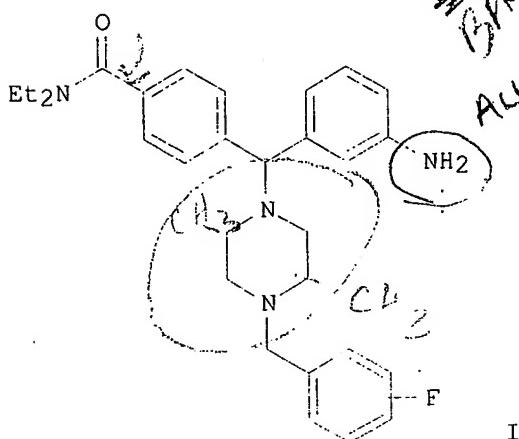


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L11 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006:117149 HCAPLUS
 DOCUMENT NUMBER: 144:212801
 TITLE: Preparation of 1-benzyl-4-diarylalkylpiperazines as
 δ -opioid agonists.
 INVENTOR(S): Brown, William; Griffin, Andrew; Hudzik, Thomas;
 Maciag, Carla; Smagin, Gennady; Walpole, Christopher
 PATENT ASSIGNEE(S): AstraZeneca AB, Swed.
 SOURCE: PCT Int. Appl., 43 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006014133	A1	20060209	WO 2005-SE1186	20050727 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
US 2006030569	A1	20060209	US 2005-243623	20051005 <--
PRIORITY APPLN. INFO.:			SE 2004-1968	A 20040802 <--
			US 2004-602363P	P 20040818 <--
			WO 2005-SE1186	A1 20050727

GI



AB Title compds. (I) were prepared Thus, N,N-di-Et 4-[(R)-(3-nitrophenyl)(1-piperazinyl)methyl]benzamide (preparation given) was stirred with 4-fluorobenzaldehyde and Na(AcO)3BH were stirred 20 h in ClCH₂CH₂Cl to give 71% nitro intermediate, which was refluxed 24 h with Fe in EtOH/THF/aqueous NH₄Cl to give 90% 4-[(R)-(3-aminophenyl)[4-(4-fluorobenzyl)piperazin-1-yl]methyl]-N,N-diethylbenzamide. This bound to delta receptors with IC₅₀ = 0.587.

IT 875647-78-2P 875647-79-3P 875647-80-6P
875647-81-7P 875647-82-8P 875647-83-9P

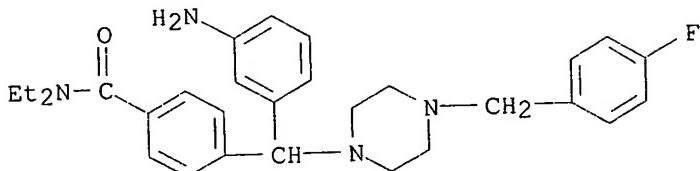
875647-84-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compound; preparation of benzyl diarylmethyl piperazines as δ-opioid agonists)

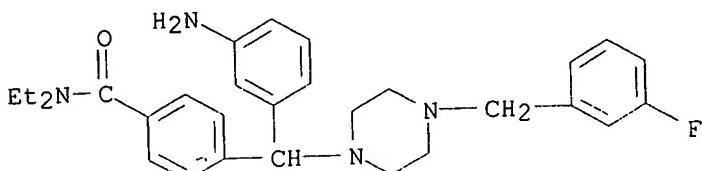
RN 875647-78-2 HCPLUS

CN Benzamide, 4-[(3-aminophenyl)[4-[(4-fluorophenyl)methyl]-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)



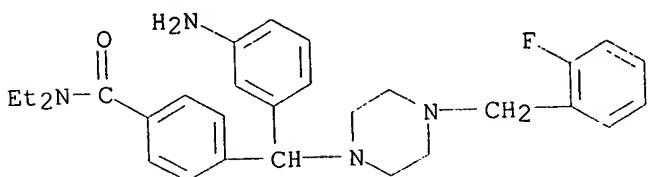
RN 875647-79-3 HCPLUS

CN Benzamide, 4-[(3-aminophenyl)[4-[(3-fluorophenyl)methyl]-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)



RN 875647-80-6 HCPLUS

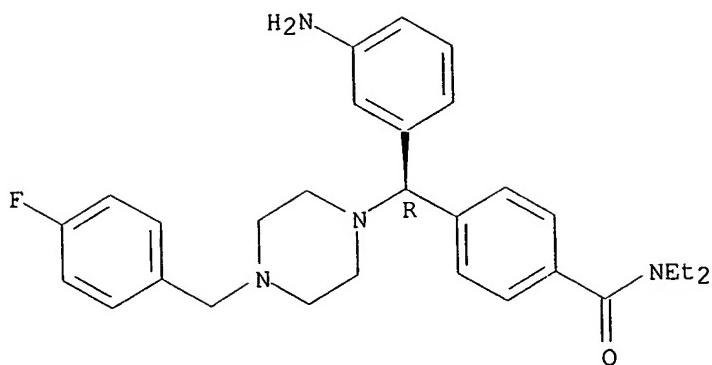
CN Benzamide, 4-[(3-aminophenyl)[4-[(2-fluorophenyl)methyl]-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)



RN 875647-81-7 HCPLUS

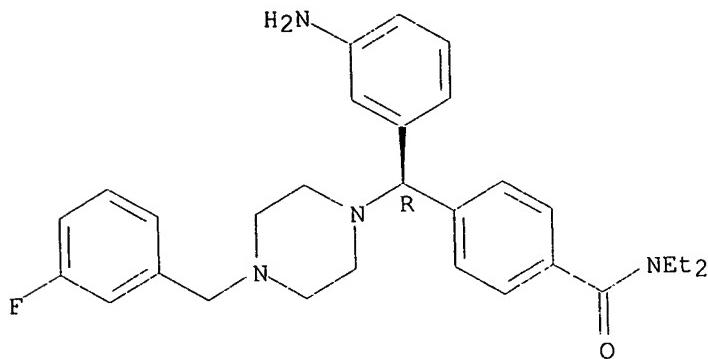
CN Benzamide, 4-[(R)-(3-aminophenyl)[4-[(4-fluorophenyl)methyl]-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



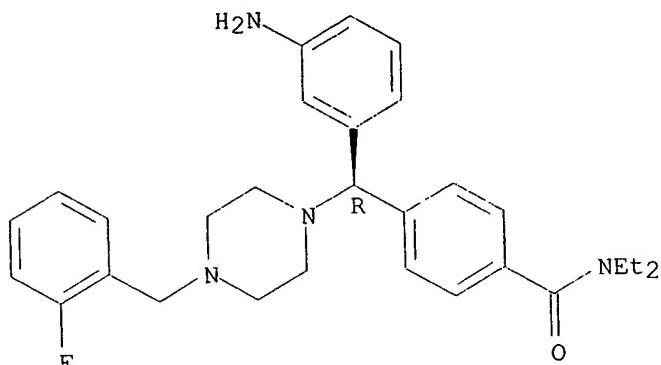
RN 875647-82-8 HCAPLUS
 CN Benzamide, 4-[(R)-(3-aminophenyl)[4-[(3-fluorophenyl)methyl]-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



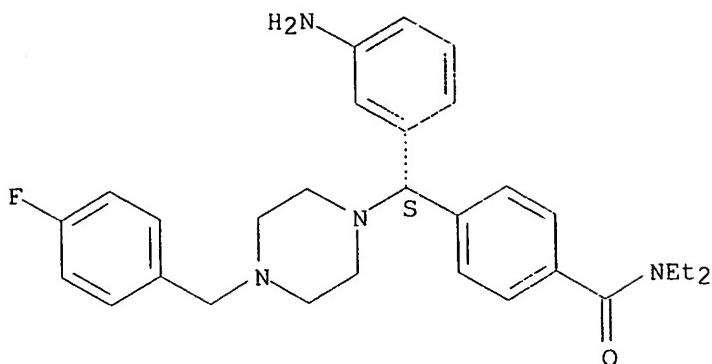
RN 875647-83-9 HCAPLUS
 CN Benzamide, 4-[(R)-(3-aminophenyl)[4-[(2-fluorophenyl)methyl]-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 875647-84-0 HCAPLUS
 CN Benzamide, 4-[(S)-(3-aminophenyl)[4-[(4-fluorophenyl)methyl]-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 875647-86-2P 875647-87-3P 875647-88-4P

875647-89-5P

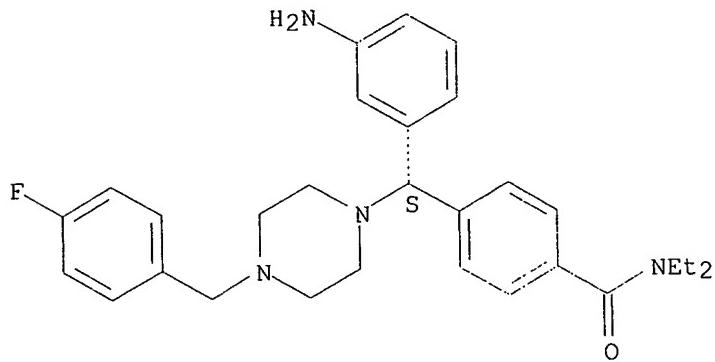
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of benzyl diarylmethyl piperazines as δ -opioid agonists)

RN 875647-86-2 HCPLUS

CN Benzamide, 4-[(S)-(3-aminophenyl)[4-[(4-fluorophenyl)methyl]-1-piperazinyl]methyl]-N,N-diethyl-, hydrochloride (10:41) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● 41/10 HCl

RN 875647-87-3 HCPLUS

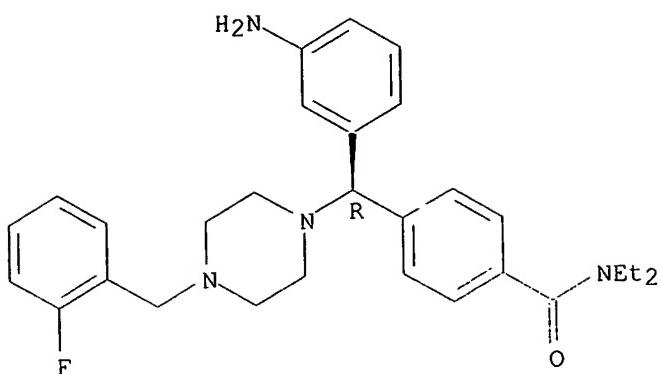
CN Benzamide, 4-[(R)-(3-aminophenyl)[4-[(2-fluorophenyl)methyl]-1-piperazinyl]methyl]-N,N-diethyl-, trifluoroacetate (5:14) (9CI) (CA INDEX NAME)

CM 1

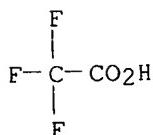
CRN 875647-83-9

CMF C29 H35 F N4 O

Absolute stereochemistry.



CM 2

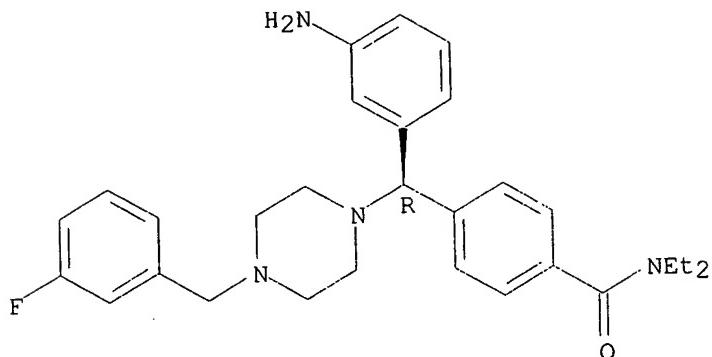
CRN 76-05-1
CMF C2 H F3 O2

RN 875647-88-4 HCPLUS
 CN Benzamide, 4-[(R)-(3-aminophenyl)[4-[(3-fluorophenyl)methyl]-1-piperazinyl]methyl]-N,N-diethyl-, trifluoroacetate (10:27) (9CI) (CA INDEX NAME)

CM 1

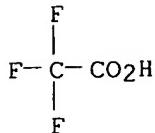
CRN 875647-82-8
CMF C29 H35 F N4 O

Absolute stereochemistry.



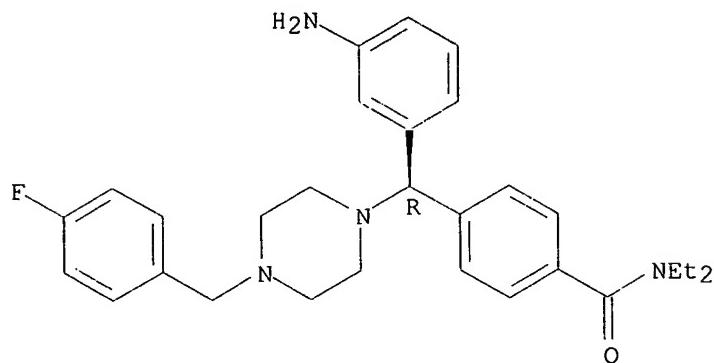
CM 2

CRN 76-05-1
 CMF C2 H F3 O2



RN 875647-89-5 HCPLUS
 CN Benzamide, 4-[(R)-(3-aminophenyl)[4-[(4-fluorophenyl)methyl]-1-piperazinyl]methyl]-N,N-diethyl-, hydrochloride (10:47) (9CI) (CA INDEX NAME)

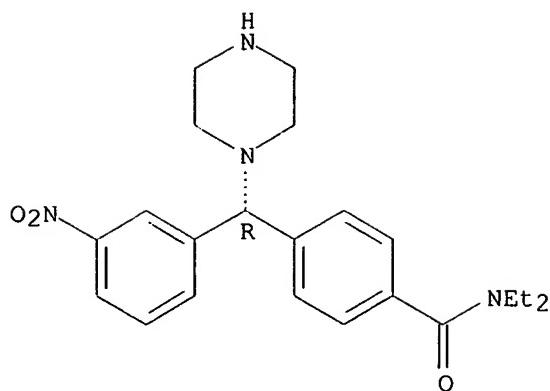
Absolute stereochemistry.



● 47/10 HCl

IT 691877-63-1P 875647-85-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of benzylidenebicyclic piperazines as δ-opioid agonists)
 RN 691877-63-1 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-(3-nitrophenyl)-1-piperazinylmethyl]- (9CI)
 (CA INDEX NAME)

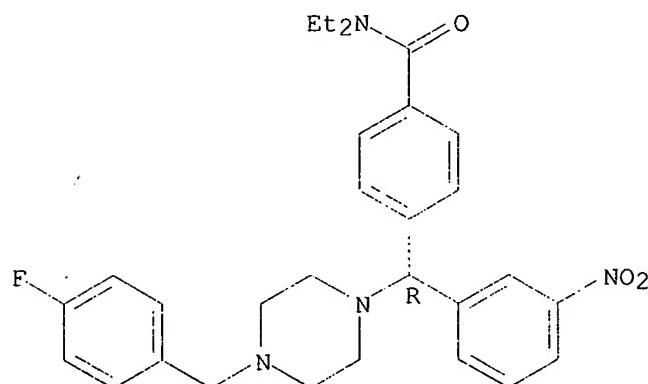
Absolute stereochemistry. Rotation (-).



RN 875647-85-1 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[4-[(4-fluorophenyl)methyl]-1-piperazinyl](3-nitrophenyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:638860 HCAPLUS

DOCUMENT NUMBER: 143:153402

TITLE: Preparation of diarylmethylpiperazines as δ receptor ligands for the treatment of pain

INVENTOR(S): Brown, William; Griffin, Andrew

PATENT ASSIGNEE(S): AstraZeneca AB, Swed.

SOURCE: PCT Int. Appl., 69 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005066148	A1	20050721	WO 2005-SE14	20050105 <-- W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
 GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
 MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:
GI

SE 2004-27

A 20040109 <--

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [R1 = alkyl, alkenyl, cycloalkyl, etc.; R2 = H, alkyl, cycloalkyl, etc.; R3 = alkyl, cycloalkyl] and their pharmaceutically acceptable salts were prepared. For example, N-alkylation of piperazine II (R1 = H) with bromoethyl Me ether afforded the hCL salt of claimed diarylmethylpiperazine II (R1 = CH₂CH₂OCH₃) in 68% yield. In human δ receptor assays, certain examples of compds. I exhibited IC₅₀ values ranging from 0.2-3.7 nM, with an average of 1 nM (sic).

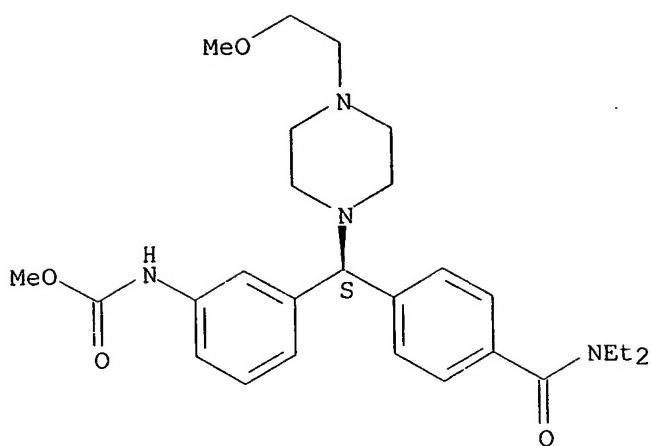
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 859635-02-2P 859635-03-3P 859635-04-4P
 859635-05-5P 859635-06-6P 859635-07-7P
 859635-08-8P 859635-09-9P 859635-10-2P
 859635-11-3P 859635-12-4P 859635-13-5P
 859635-14-6P 859635-15-7P 859635-16-8P
 859635-17-9P 859635-18-0P 859843-90-6P
 859843-91-7P 859843-92-8P 859843-93-9P
 859843-94-0P 859843-95-1P 859843-96-2P
 859843-97-3P 859843-98-4P 859843-99-5P
 859844-00-1P 859844-01-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of diarylmethylpiperazines as δ receptor ligands for treatment of pain)

RN 859634-99-4 HCPLUS
 CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(2-methoxyethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

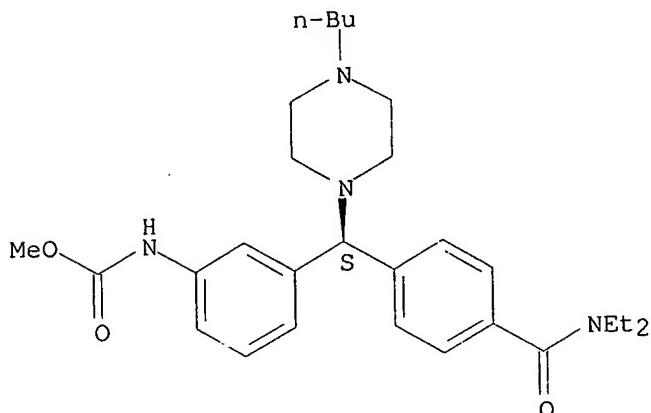


● HCl

RN 859635-00-0 HCPLUS

CN Carbamic acid, [3-[(S)-(4-butyl-1-piperazinyl)[4-(diethylamino)carbonyl]phenyl]methyl]phenyl-, methyl ester (9CI) (CA INDEX NAME)

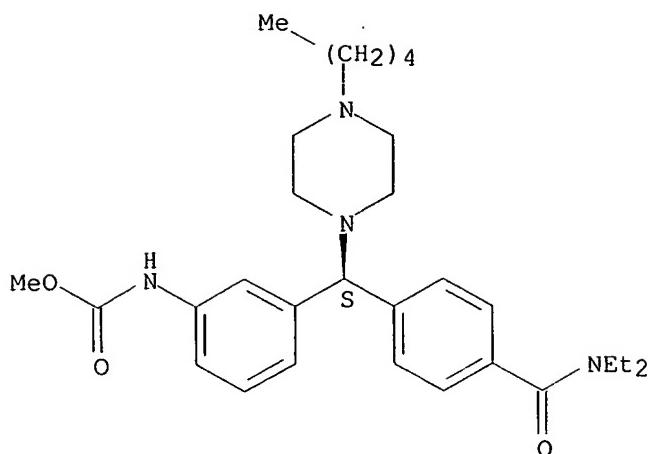
Absolute stereochemistry. Rotation (+).



RN 859635-01-1 HCPLUS

CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl](4-pentyl-1-piperazinyl)methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

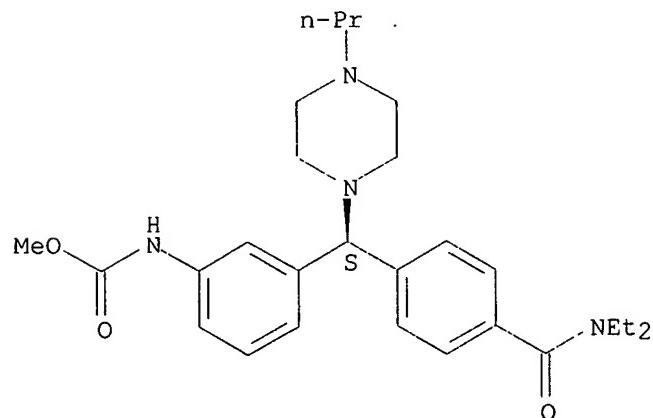
Absolute stereochemistry. Rotation (+).



RN 859635-02-2 HCPLUS

CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl](4-propyl-1-piperazinyl)methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

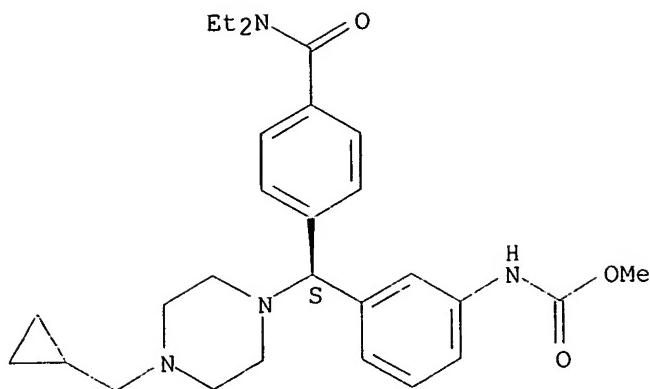
Absolute stereochemistry. Rotation (+).



RN 859635-03-3 HCPLUS

CN Carbamic acid, [3-[(S)-[4-(cyclopropylmethyl)-1-piperazinyl][4-[(diethylamino)carbonyl]phenyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

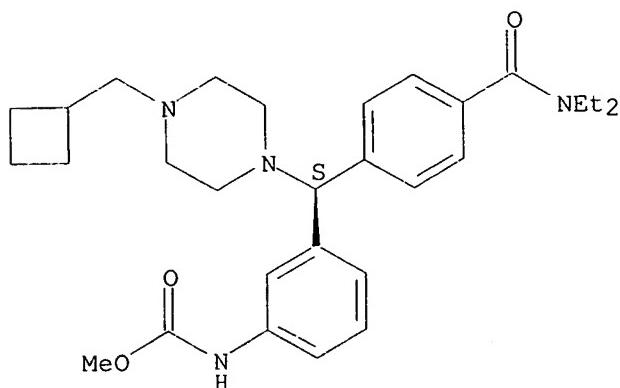
Absolute stereochemistry. Rotation (+).



RN 859635-04-4 HCAPLUS

CN Carbamic acid, [3-[(S)-[4-(cyclobutylmethyl)-1-piperazinyl][4-[(diethylamino)carbonyl]phenyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

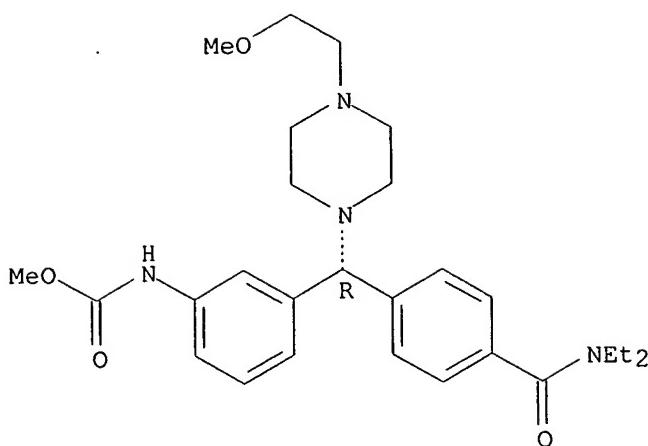
Absolute stereochemistry. Rotation (+).



RN 859635-05-5 HCAPLUS

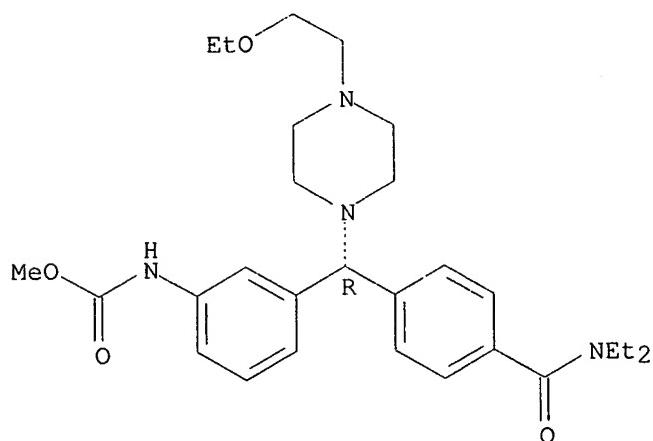
CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(2-methoxyethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 859635-06-6 HCPLUS
 CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(2-ethoxyethyl)-1-piperazinylmethylphenyl]-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)

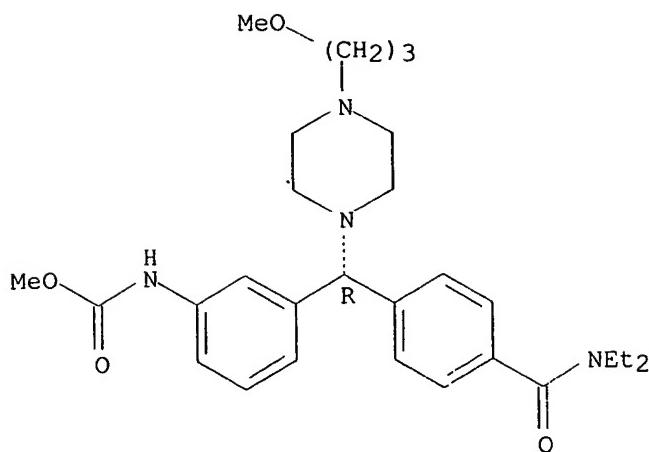
Absolute stereochemistry. Rotation (-).



● HCl

RN 859635-07-7 HCPLUS
 CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(3-methoxypropyl)-1-piperazinylmethylphenyl]-, methyl ester (9CI) (CA INDEX NAME)

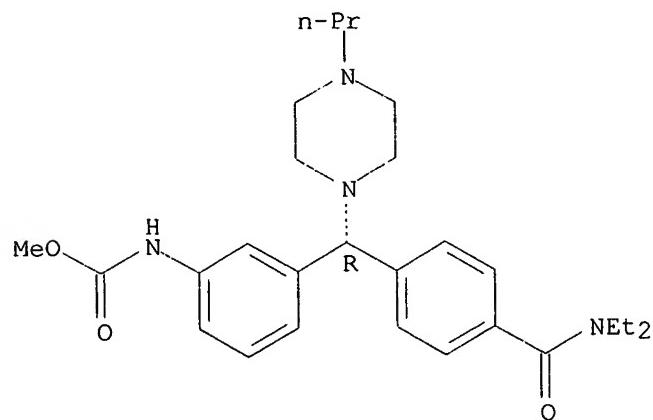
Absolute stereochemistry. Rotation (-).



RN 859635-08-8 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl](4-propyl-1-piperazinyl)methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

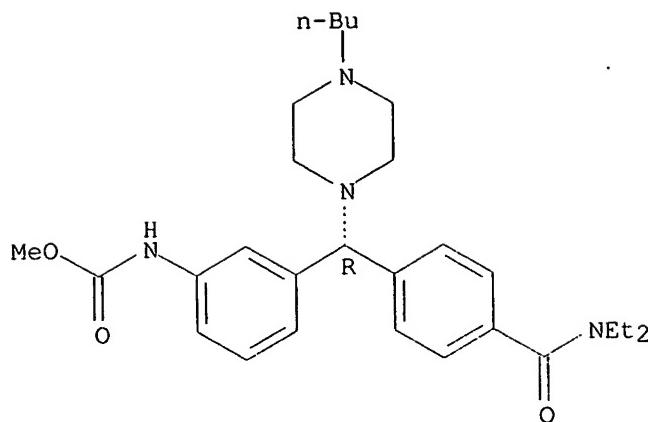
Absolute stereochemistry. Rotation (-).



RN 859635-09-9 HCPLUS

CN Carbamic acid, [3-[(R)-(4-butyl-1-piperazinyl)[4-[(diethylamino)carbonyl]phenyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

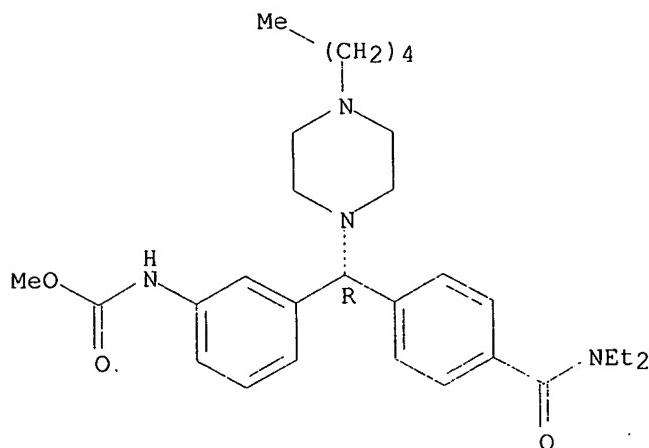
Absolute stereochemistry. Rotation (-).



RN 859635-10-2 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl](4-pentyl-1-piperazinyl)methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

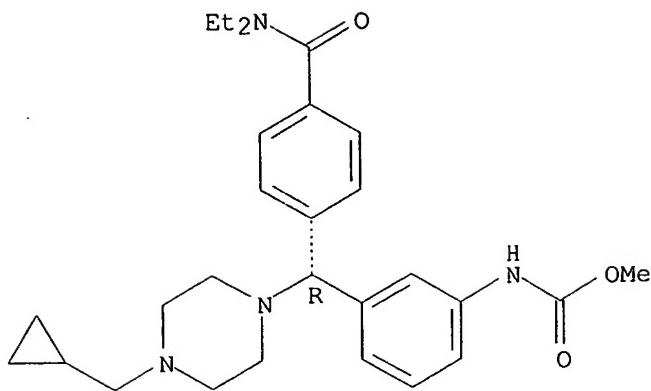
Absolute stereochemistry. Rotation (-).



RN 859635-11-3 HCPLUS

CN Carbamic acid, [3-[(R)-[4-(cyclopropylmethyl)-1-piperazinyl][4-[(diethylamino)carbonyl]phenyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

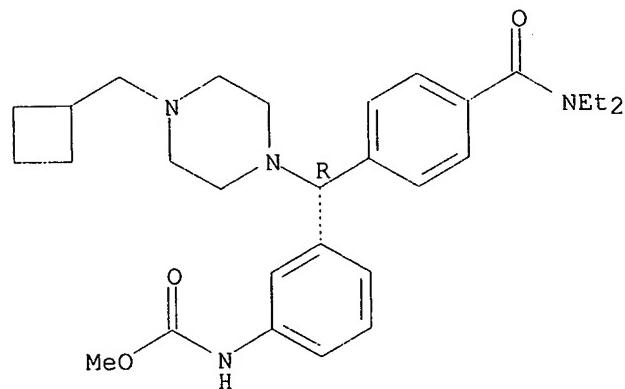
Absolute stereochemistry. Rotation (-).



RN 859635-12-4 HCPLUS

CN Carbamic acid, [3-[(R)-[4-(cyclobutylmethyl)-1-piperazinyl][4-[(diethylamino)carbonyl]phenyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

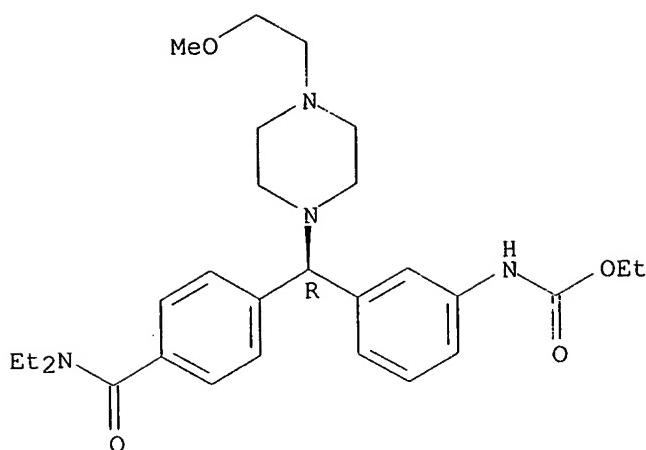
Absolute stereochemistry. Rotation (-).



RN 859635-13-5 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(2-methoxyethyl)-1-piperazinyl]methyl]phenyl]-, ethyl ester (9CI) (CA INDEX NAME)

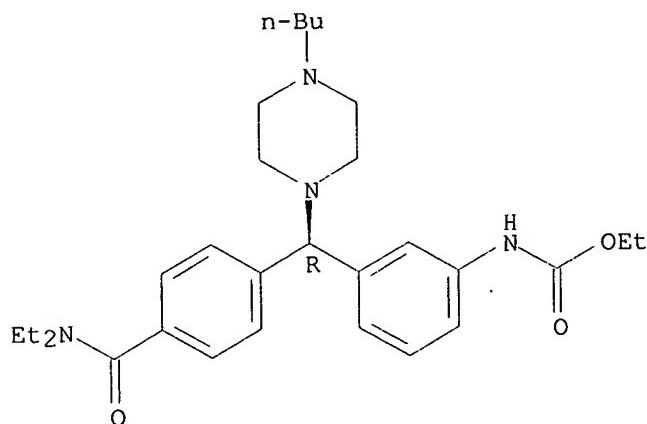
Absolute stereochemistry. Rotation (-).



RN 859635-14-6 HCPLUS

CN Carbamic acid, [3-[(R)-(4-butyl-1-piperazinyl)[4-[(diethylamino)carbonyl]phenyl]methyl]phenyl]-, ethyl ester (9CI) (CA INDEX NAME)

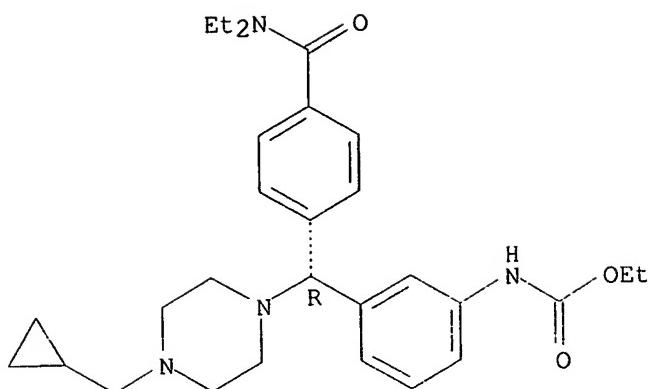
Absolute stereochemistry. Rotation (-).



RN 859635-15-7 HCPLUS

CN Carbamic acid, [3-[(R)-[4-(cyclopropylmethyl)-1-piperazinyl][4-[(diethylamino)carbonyl]phenyl]methyl]phenyl]-, ethyl ester (9CI) (CA INDEX NAME)

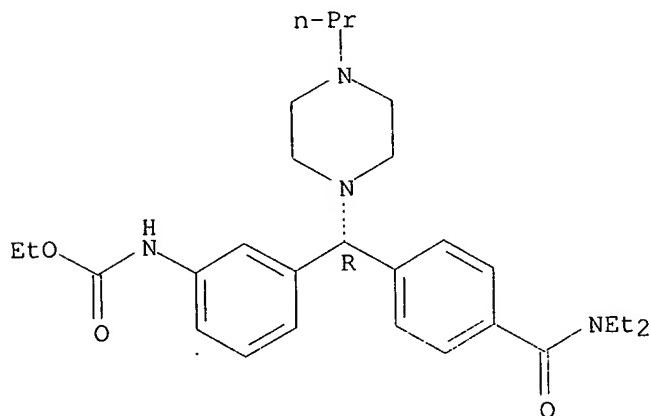
Absolute stereochemistry. Rotation (-).



RN 859635-16-8 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl](4-propyl-1-piperazinyl)methyl]phenyl]-, ethyl ester (9CI) (CA INDEX NAME)

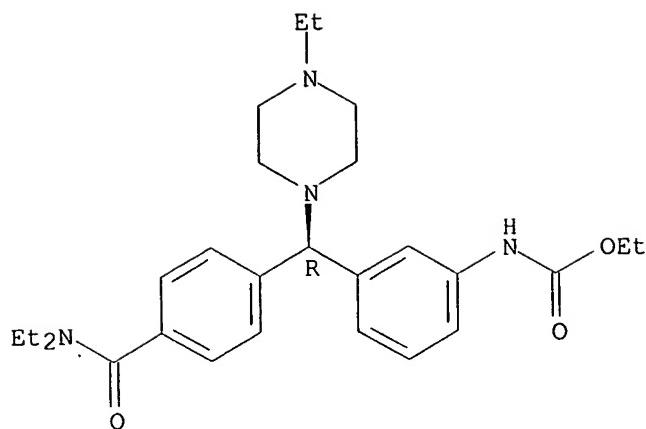
Absolute stereochemistry. Rotation (-).



RN 859635-17-9 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl](4-ethyl-1-piperazinyl)methyl]phenyl]-, ethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

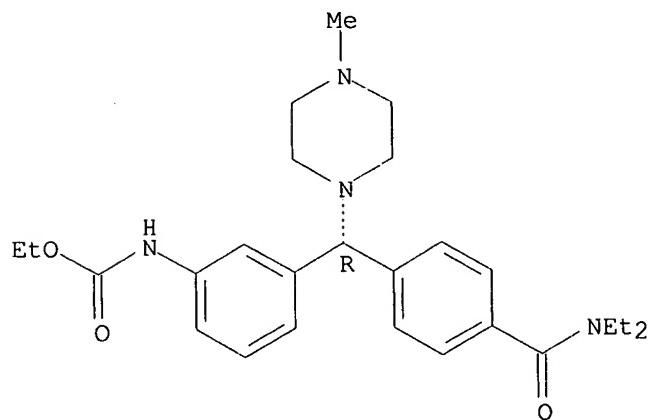


● HCl

RN 859635-18-0 HCAPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl](4-methyl-1-piperazinyl)methyl]phenyl]-, ethyl ester (9CI) (CA INDEX NAME)

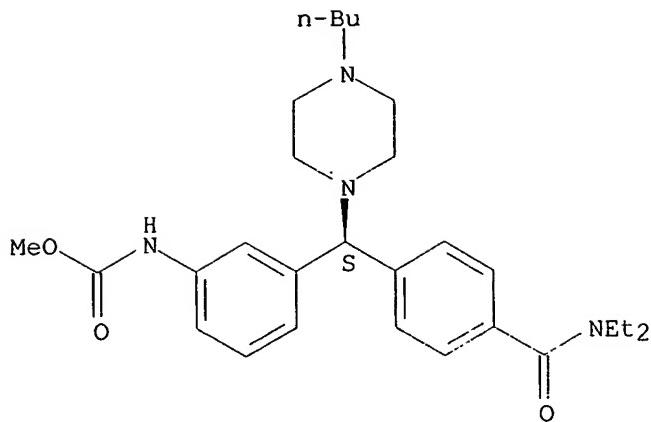
Absolute stereochemistry. Rotation (-).



RN 859843-90-6 HCAPLUS

CN Carbamic acid, [3-[(S)-(4-butyl-1-piperazinyl)[4-[(diethylamino)carbonyl]phenyl]methyl]phenyl]-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

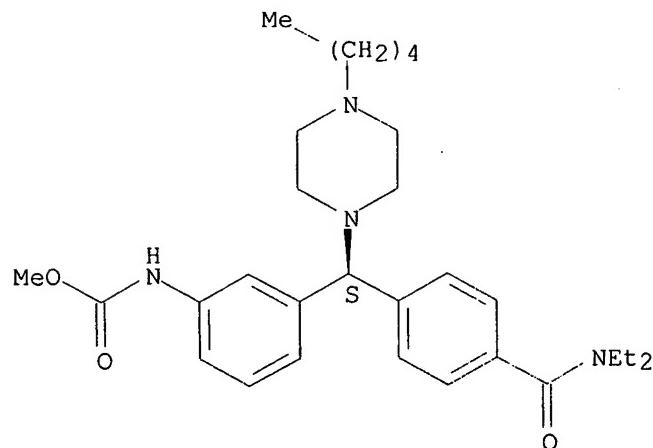


● HCl

RN 859843-91-7 HCPLUS

CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl](4-pentyl-1-piperazinyl)methyl]phenyl]-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

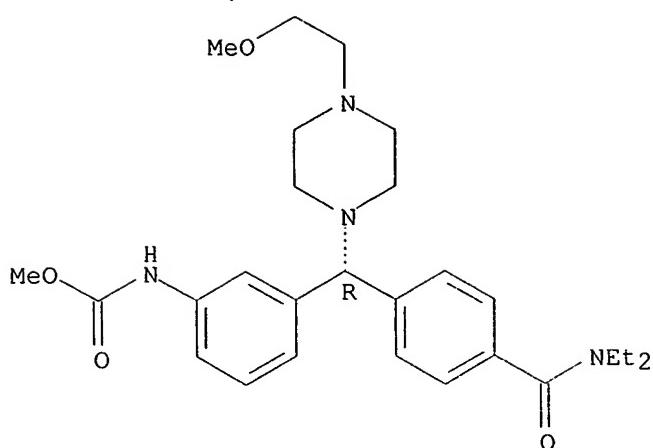


● HCl

RN 859843-92-8 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(2-methoxyethyl)-1-piperazinylmethyl]phenyl]-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

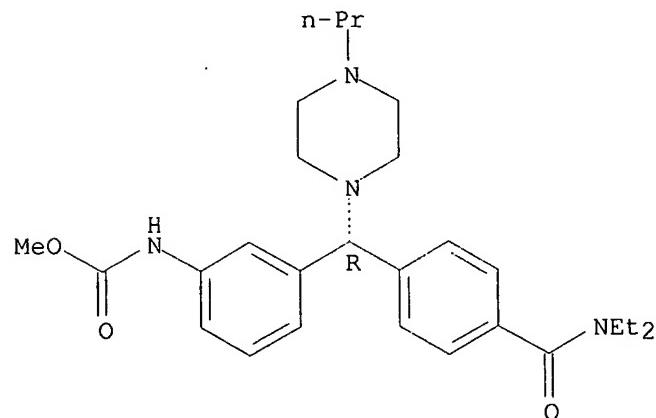


● HCl

RN 859843-93-9 HCAPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl](4-propyl-1-piperazinyl)methyl]phenyl]-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

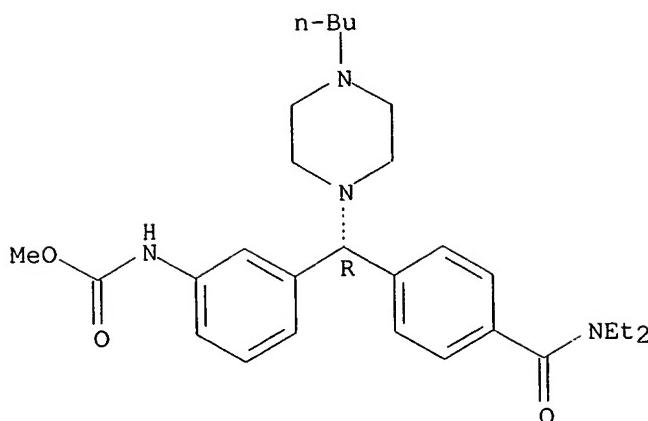


● HCl

RN 859843-94-0 HCAPLUS

CN Carbamic acid, [3-[(R)-(4-butyl-1-piperazinyl)[4-[(diethylamino)carbonyl]phenyl]methyl]phenyl]-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

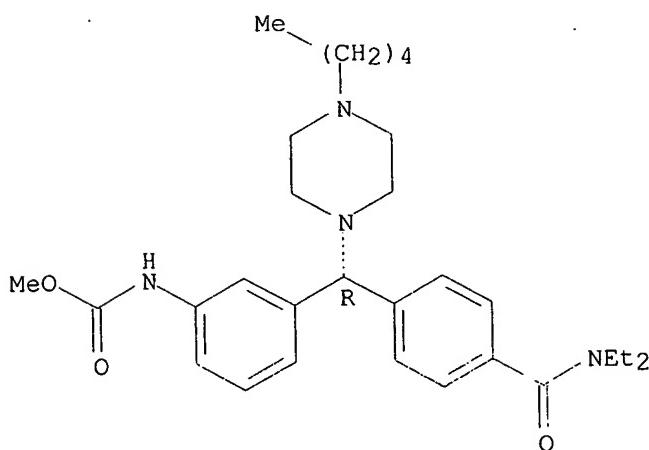


● HCl

RN 859843-95-1 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl](4-pentyl-1-piperazinyl)methyl]phenyl]-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

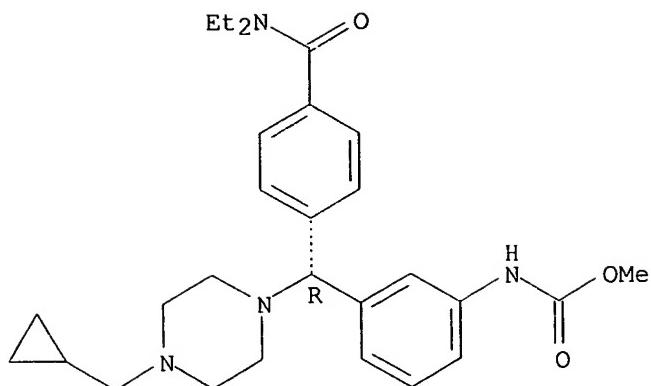


● HCl

RN 859843-96-2 HCPLUS

CN Carbamic acid, [3-[(R)-[4-(cyclopropylmethyl)-1-piperazinyl][4-[(diethylamino)carbonyl]phenyl]methyl]phenyl]-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

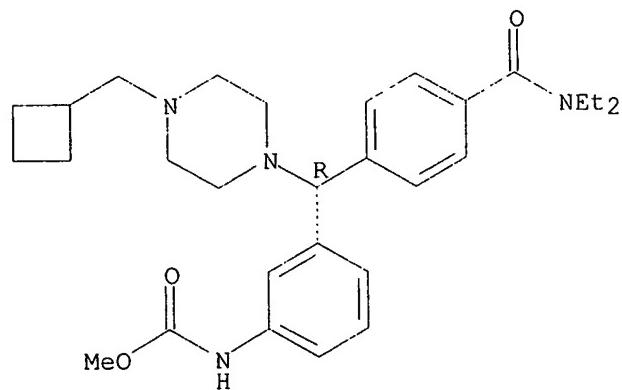


● HCl

RN 859843-97-3 HCPLUS

CN Carbamic acid, [3-[(R)-[4-(cyclobutylmethyl)-1-piperazinyl][4-[(diethylamino)carbonyl]phenyl]methyl]phenyl]-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

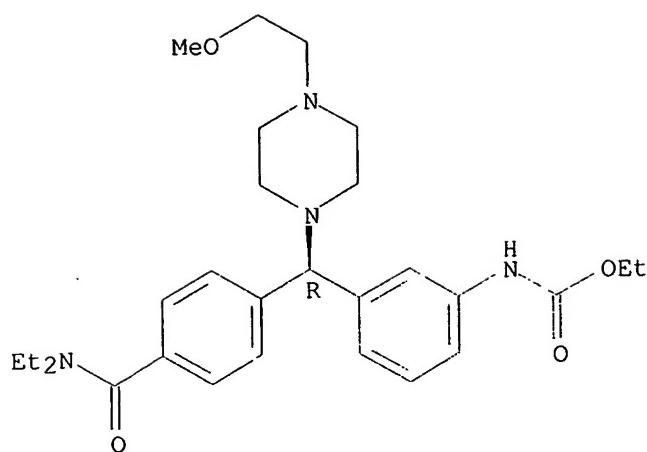


● HCl

RN 859843-98-4 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(2-methoxyethyl)-1-piperazinyl]methyl]phenyl]-, ethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

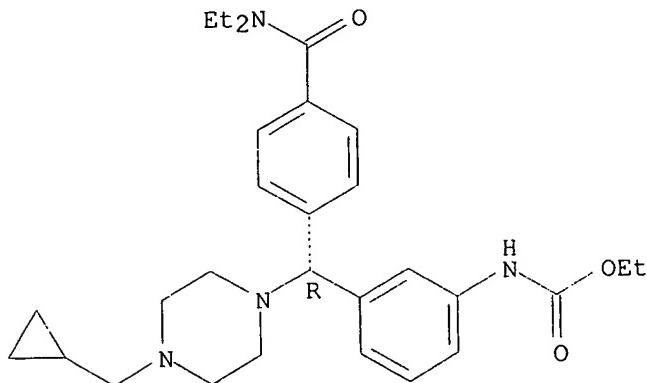


● HCl

RN 859843-99-5 HCPLUS

CN Carbamic acid, [3-[(R)-[4-(cyclopropylmethyl)-1-piperazinyl][4-[(diethylamino)carbonyl]phenyl]methyl]phenyl]-, ethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

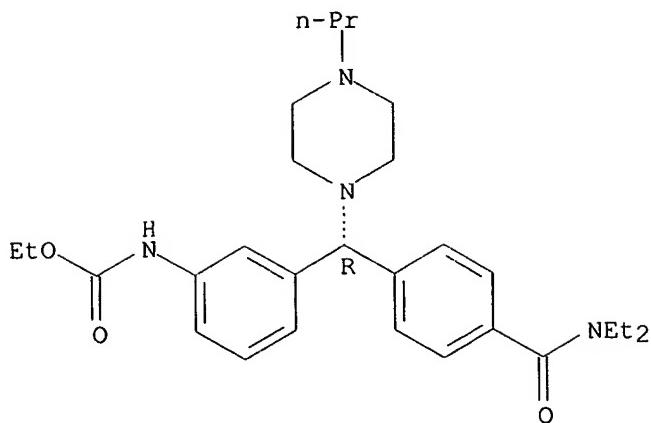


● HCl

RN 859844-00-1 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl](4-propyl-1-piperazinyl)methyl]phenyl]-, ethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

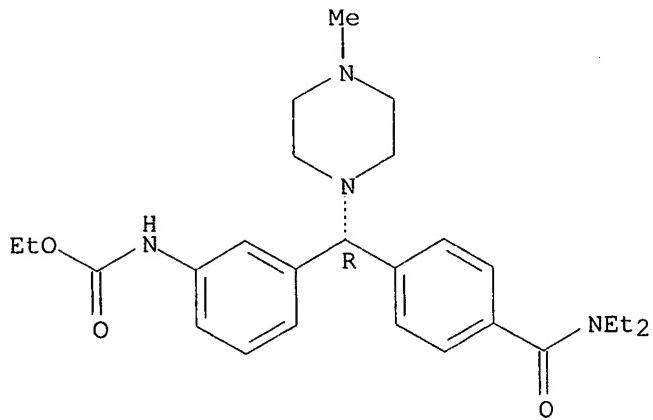


● HCl

RN 859844-01-2 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl](4-methyl-1-piperazinyl)methyl]phenyl]-, ethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



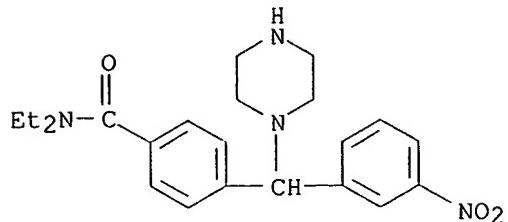
● HCl

IT 477191-80-3P, N,N-Diethyl-4-[(3-nitrophenyl)(1-piperazinyl)methyl]benzamide 691877-62-0P 691877-63-1P
691878-34-9P 691890-45-6P 691890-46-7P
859635-19-1P 859635-20-4P 859635-21-5P
859635-22-6P 859635-23-7P 859635-24-8P
859844-02-3P 859844-03-4P 859844-04-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

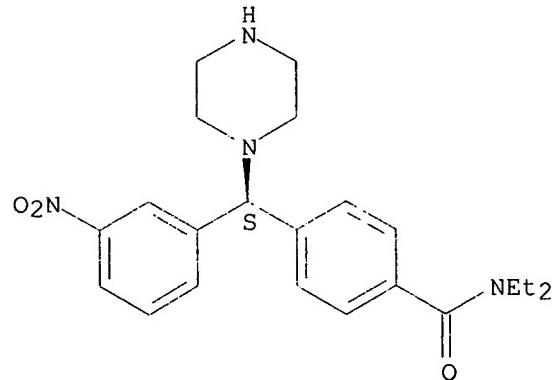
(preparation of diarylmethylpiperazines as δ receptor ligands for treatment of pain)

RN 477191-80-3 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(3-nitrophenyl)-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)



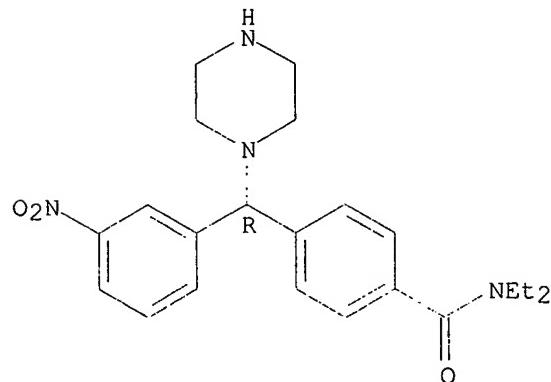
RN 691877-62-0 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-(3-nitrophenyl)-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 691877-63-1 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-(3-nitrophenyl)-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

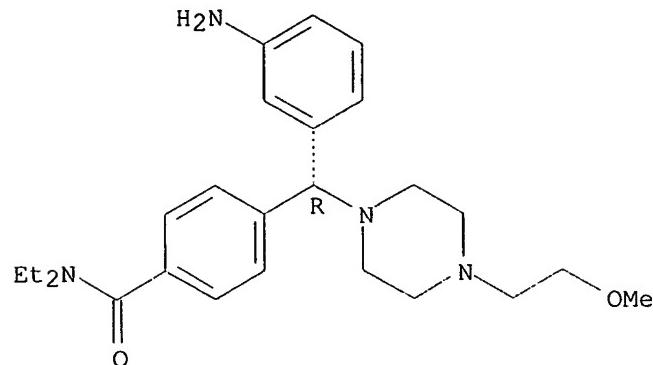
Absolute stereochemistry. Rotation (-).



RN 691878-34-9 HCPLUS

CN Benzamide, 4-[(R)-(3-aminophenyl)[4-(2-methoxyethyl)-1-piperazinyl]methyl]-
N,N-diethyl- (9CI) (CA INDEX NAME)

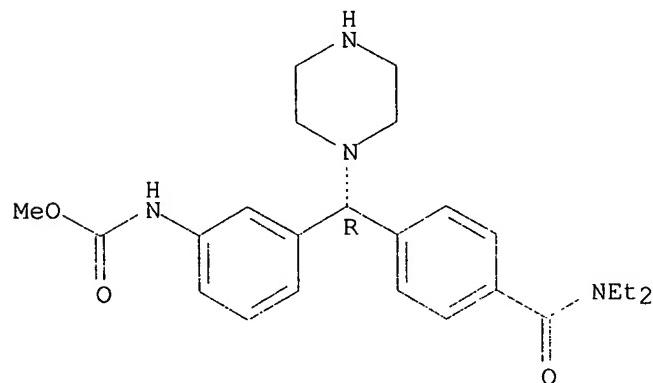
Absolute stereochemistry. Rotation (-).



RN 691890-45-6 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

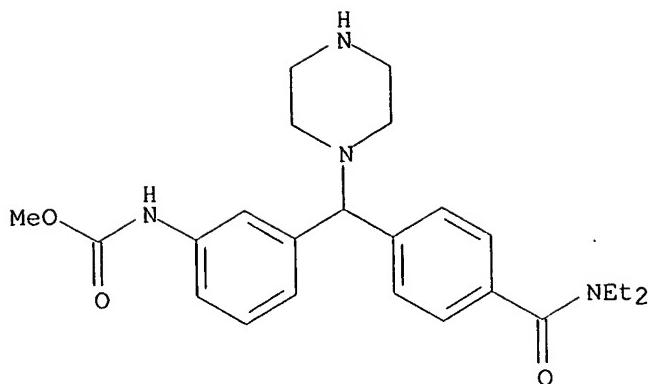
Absolute stereochemistry. Rotation (-).



RN 691890-46-7 HCPLUS

CN Carbamic acid, [3-[[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-, methyl ester, (+)- (9CI) (CA INDEX NAME)

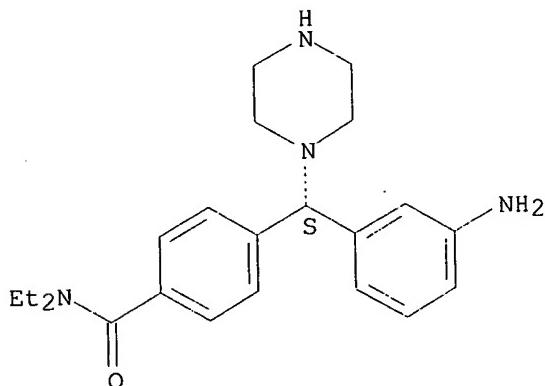
Rotation (+).



RN 859635-19-1 HCAPLUS

CN Benzamide, 4-[(S)-(3-aminophenyl)-1-piperazinylmethyl]-N,N-diethyl- (9CI)
(CA INDEX NAME)

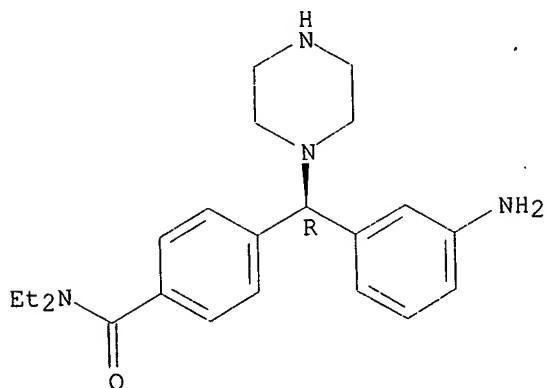
Absolute stereochemistry.



RN 859635-20-4 HCAPLUS

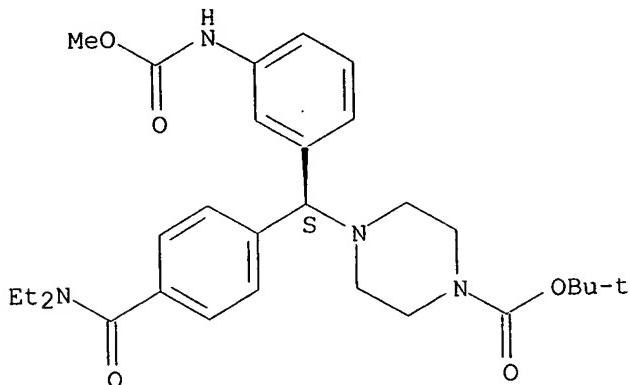
CN Benzamide, 4-[(R)-(3-aminophenyl)-1-piperazinylmethyl]-N,N-diethyl- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



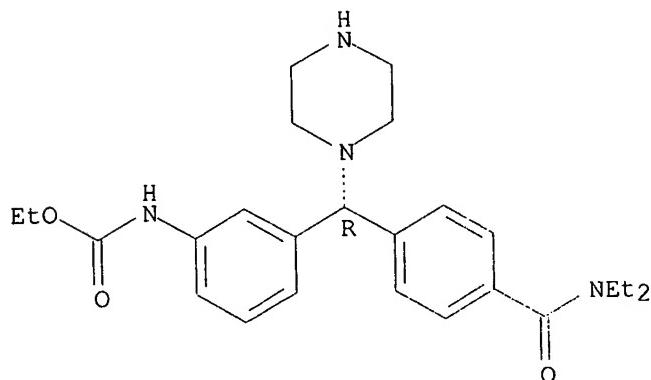
RN 859635-21-5 HCAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[(S)-[4-[(diethylamino)carbonyl]phenyl][3-
 [(methoxycarbonyl)amino]phenyl]methyl]-, 1,1-dimethylethyl ester (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.



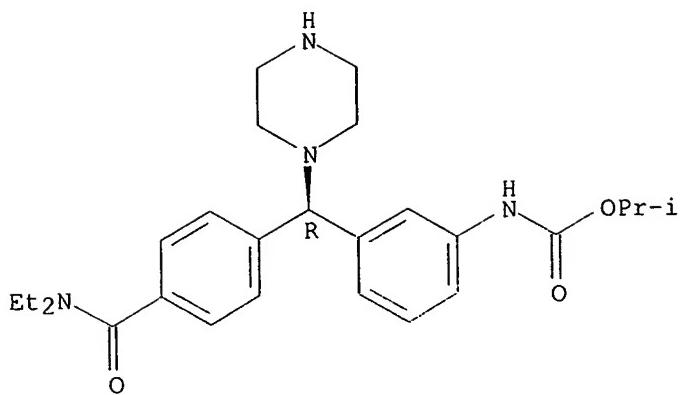
RN 859635-22-6 HCAPLUS
 CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl]-1-
 piperazinylmethyl]phenyl]-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 859635-23-7 HCAPLUS
 CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl]-1-
 piperazinylmethyl]phenyl]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

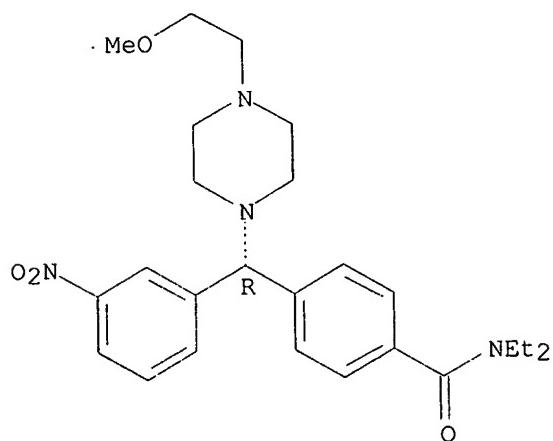
Absolute stereochemistry. Rotation (-).



RN 859635-24-8 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[4-(2-methoxyethyl)-1-piperazinyl](3-nitrophenyl)methyl]- (9CI) (CA INDEX NAME)

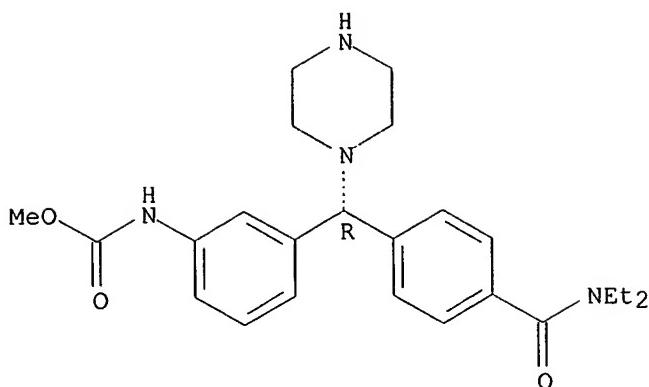
Absolute stereochemistry.



RN 859844-02-3 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

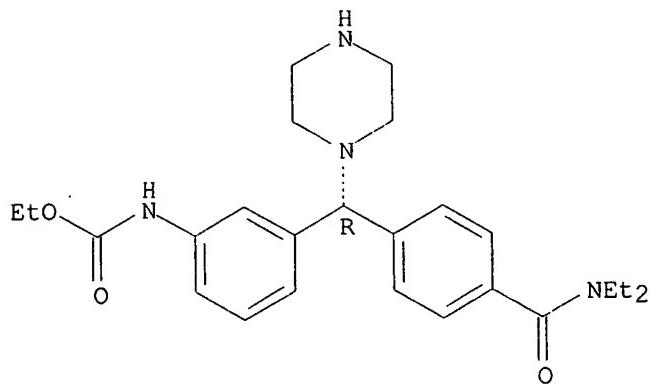


● HCl

RN 859844-03-4 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-, ethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

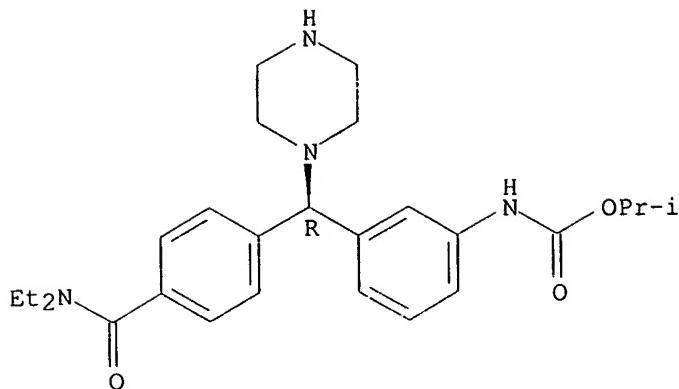


● HCl

RN 859844-04-5 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-, 1-methylethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HCl

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 6 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:412932 HCPLUS
 DOCUMENT NUMBER: 140:423709
 TITLE: Preparation of N-[4-(phenylpiperazinylmethyl)phenyl]carbamates for treatment of pain, anxiety, or gastrointestinal disorders
 INVENTOR(S): Brown, William; Griffin, Andrew; Jones, Paul; Page, Daniel; Plobeck, Niklas; Walpole, Christopher
 PATENT ASSIGNEE(S): AstraZeneca AB, Swed.
 SOURCE: PCT Int. Appl., 72 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004041802	A1	20040521	WO 2003-SE1707	20031105 <--
WO 2004041802	C1	20050310		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2502732	AA	20040521	CA 2003-2502732	20031105 <--
AU 2003278665	A1	20040607	AU 2003-278665	20031105 <--
EP 1562924	A1	20050817	EP 2003-770198	20031105 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003015995	A	20050927	BR 2003-15995	20031105 <--

NO 2005002698	A 20050606	NO 2005-2698	20050606 <--
PRIORITY APPLN. INFO.:		SE 2002-3303	A 20021107 <--
		WO 2003-SE1707	W 20031105 <--

OTHER SOURCE(S): MARPAT 140:423709
GI

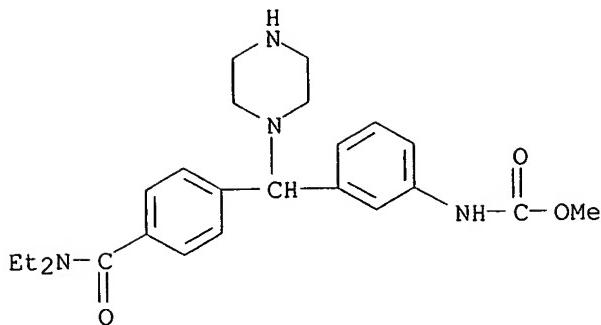
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [wherein R1 = (un)substituted (hetero)aryl(alkyl); R2 and R3 = independently H or (un)substituted (cyclo)alkyl; or pharmaceutically acceptable salts, diastereomers, enantiomers, or mixts. thereof] were prepared as opioid δ receptor ligands. For example, 4-carboxybenzaldehyde was amidated with diethylamine using SOC12 in CH₂Cl₂ to give N,N-diethyl-4-formylbenzamide (90%). Coupling of the amide with N-Boc-piperazine in the presence of benzotriazole in toluene, followed by reaction with 3-bromophenylzinc iodide in THF, afforded tert-Bu 4-[(3-bromophenyl)[4-[(diethylamino)carbonyl]phenyl]methyl]-1-piperazinecarboxylate (33%). Coupling with Me carbamate (62%) using xantphos, Cs₂CO₃, and Pd2(dba)₃ in dioxane, deprotection (89%) with TFA in CH₂Cl₂, and chiral HPLC separation of the enantiomers provided (-)-[3-[[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]carbamic acid Me ester. Reaction of the piperazine with benzaldehyde in the presence of NaBH(OAc)₃ in CH₂Cl₂ gave (R)-II. In binding assays using human 293S cells expressing cloned human opioid receptors and neomycin resistance, (R)-II and ten other exemplified compds. exhibited strong binding to the δ receptor with IC₅₀ values in the range of 0.25-0.74 nM and showed some activity toward the κ (IC₅₀ = 247-1636 nM) and μ (IC₅₀ = 93-1100 nM) receptors. In functional assays, (R)-II demonstrated δ receptor agonist activity by activating the binding of GTP to G-proteins. Thus, I and their pharmaceutical compns. are useful in therapy, in particular for the treatment of gastrointestinal disorders, anxiety, or pain (no data).

IT 691890-44-5P, [3-[[4-[(Diethylamino)carbonyl]phenyl]piperazin-1-ylmethyl]phenyl]carbamic acid methyl ester
RL: PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); PYP (Physical process); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses) (intermediate, δ receptor agonist; preparation of N-[(phenylpiperazinylmethyl)phenyl]carbamates as δ receptor agonists for treatment of pain, anxiety, or gastrointestinal disorders)

RN 691890-44-5 HCPLUS

CN Carbamic acid, [3-[[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

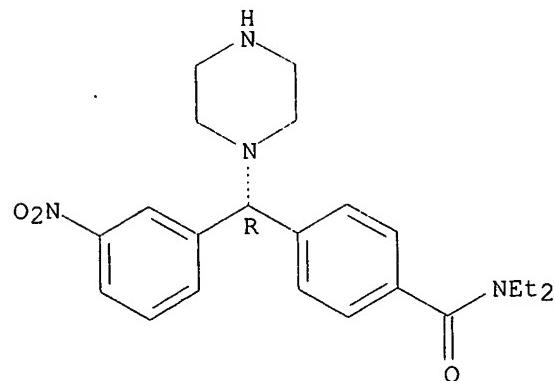


IT 691877-63-1P 691890-45-6P 691890-46-7P
 RL: PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; preparation of N-[(phenylpiperazinylmethyl)phenyl]carbamates as δ receptor agonists for treatment of pain, anxiety, or gastrointestinal disorders)

RN 691877-63-1 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-(3-nitrophenyl)-1-piperazinylmethyl]- (9CI)
 (CA INDEX NAME)

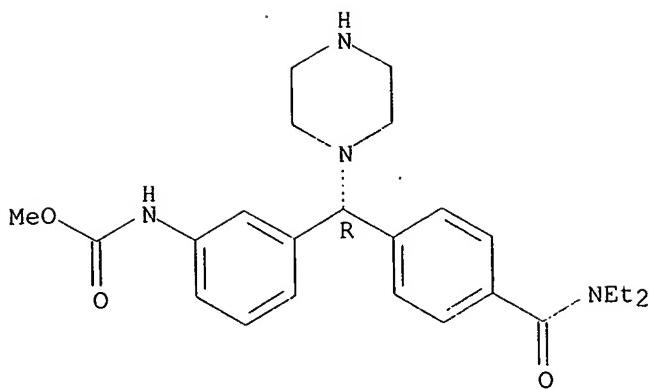
Absolute stereochemistry. Rotation (-).



RN 691890-45-6 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

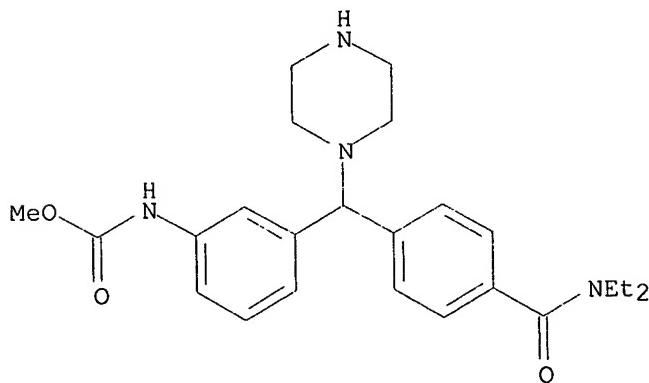
Absolute stereochemistry. Rotation (-).



RN 691890-46-7 HCAPLUS

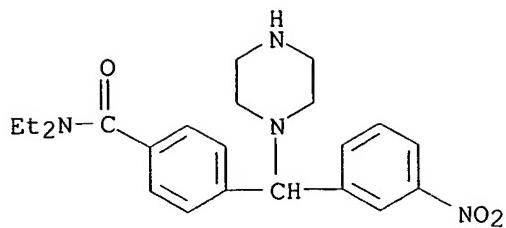
CN Carbamic acid, [3-[(4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-, methyl ester, (+)- (9CI) (CA INDEX NAME)

Rotation (+).



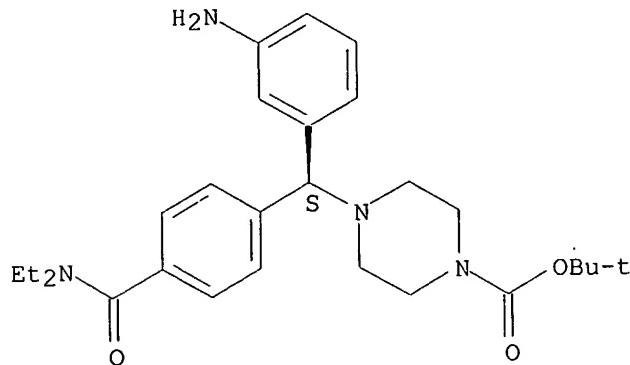
IT 477191-80-3P, N,N-Diethyl-4-[(3-nitrophenyl)(1-piperazinyl)methyl]benzamide 691877-64-2P 691877-65-3P
 691890-43-4P, 4-[(4-[(Diethylamino)carbonyl]phenyl)[3-(methoxycarbonyl)amino]phenyl]methyl]-1-piperazinecarboxylic acid
 1,1-dimethylethyl ester 691890-47-8P 691890-48-9P
 691890-49-0P, (S)-4-[(3-Aminophenyl)[4-[(pyridin-3-yl)methyl]piperazin-1-yl]methyl]-N,N-diethylbenzamide 691890-50-3P
 , (S)-4-[(3-Aminophenyl)[4-[(1,3-thiazol-2-yl)methyl]piperazin-1-yl]methyl]-N,N-diethylbenzamide
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (intermediate; preparation of N-[(phenylpiperazinylmethyl)phenyl]carbamates
 as δ receptor agonists for treatment of pain, anxiety, or
 gastrointestinal disorders)

RN 477191-80-3 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(3-nitrophenyl)-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)



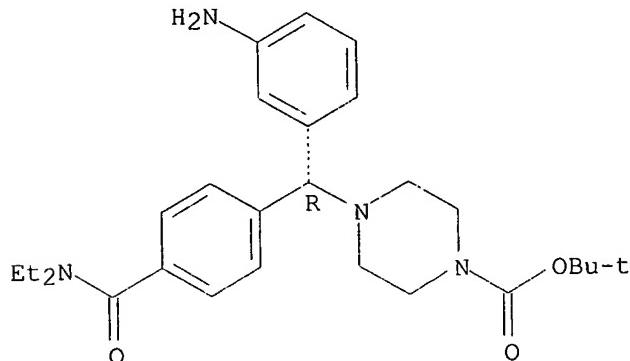
RN 691877-64-2 HCAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[(S)-(3-aminophenyl)[4-
 [(diethylamino)carbonyl]phenyl]methyl]-, 1,1-dimethylethyl ester (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.

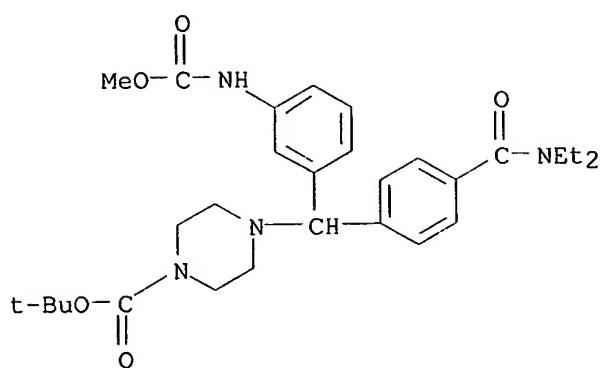


RN 691877-65-3 HCAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[(R)-(3-aminophenyl)[4-
 [(diethylamino)carbonyl]phenyl]methyl]-, 1,1-dimethylethyl ester (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.



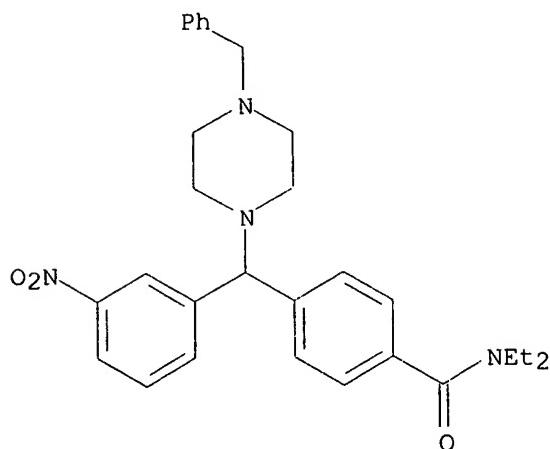
RN 691890-43-4 HCAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[[4-[(diethylamino)carbonyl]phenyl][3-
 [(methoxycarbonyl)amino]phenyl]methyl]-, 1,1-dimethylethyl ester (9CI)
 (CA INDEX NAME)



RN 691890-47-8 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(3-nitrophenyl)[4-(phenylmethyl)-1-piperazinyl]methyl]-, (-) (9CI) (CA INDEX NAME)

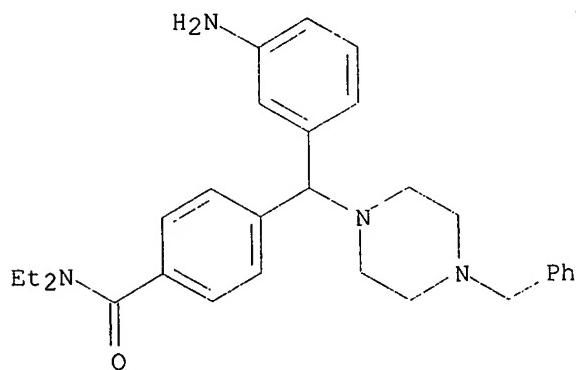
Rotation (-).



RN 691890-48-9 HCAPLUS

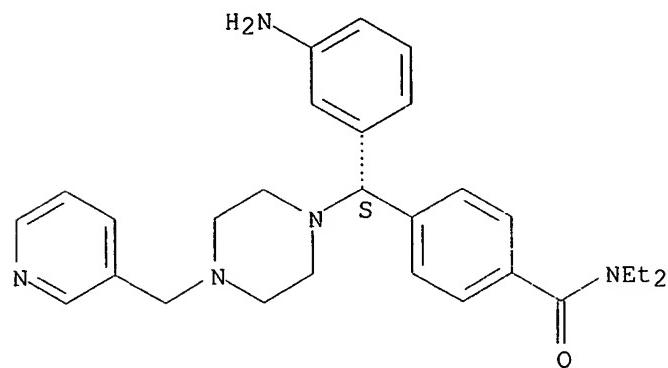
CN Benzamide, 4-[(3-aminophenyl)[4-(phenylmethyl)-1-piperazinyl]methyl]-N,N-diethyl-, (-) (9CI) (CA INDEX NAME)

Rotation (-).



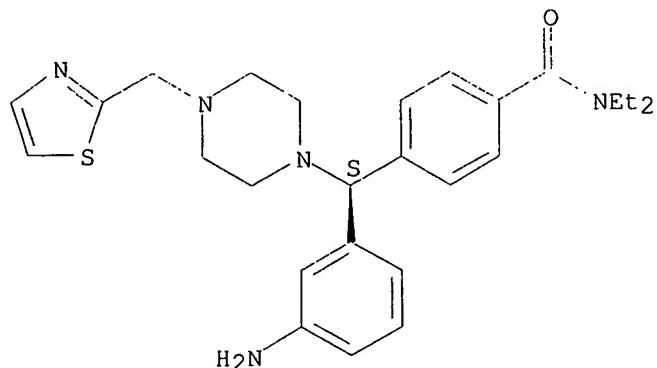
RN 691890-49-0 HCAPLUS
 CN Benzamide, 4-[(S)-(3-aminophenyl)[4-(3-pyridinylmethyl)-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



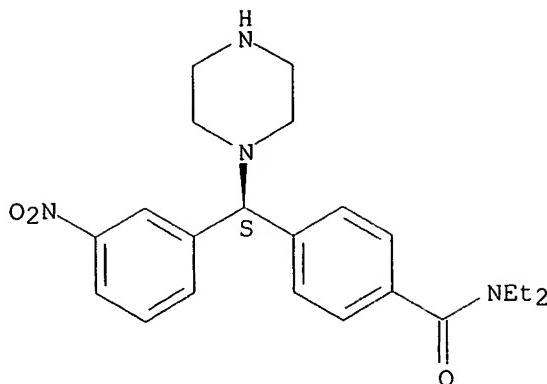
RN 691890-50-3 HCAPLUS
 CN Benzamide, 4-[(S)-(3-aminophenyl)[4-(2-thiazolylmethyl)-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 691877-62-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of N-[(phenylpiperazinylmethyl)phenyl]carbamates as δ receptor agonists for treatment of pain, anxiety, or gastrointestinal disorders)
 RN 691877-62-0 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-(3-nitrophenyl)-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



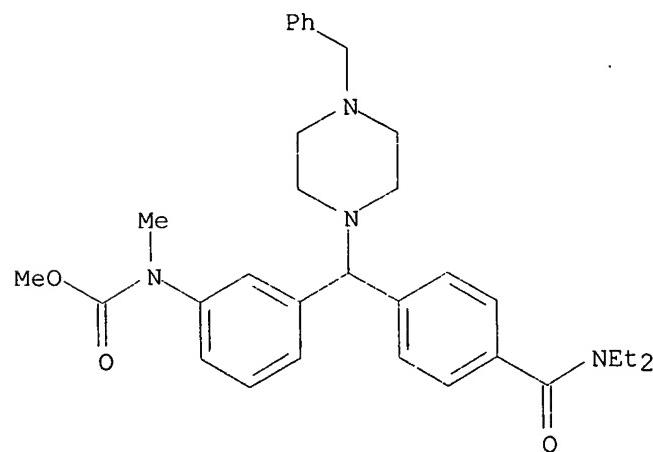
IT 691890-67-2P

RL: PAC (Pharmacological activity); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (δ receptor agonist; preparation of N-[(phenylpiperazinylmethyl)phenyl]carbamates as δ receptor agonists for treatment of pain, anxiety, or gastrointestinal disorders)

RN 691890-67-2 HCPLUS

CN Carbamic acid, [3-[(4-[(diethylamino)carbonyl]phenyl)[4-(phenylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, (-)- (9CI) (CA INDEX NAME)

Rotation (-).



IT 691890-72-9P 691890-74-1P 691890-76-3P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (δ receptor agonist; preparation of N-[(phenylpiperazinylmethyl)phenyl]carbamates as δ receptor agonists for treatment of pain, anxiety, or gastrointestinal disorders)

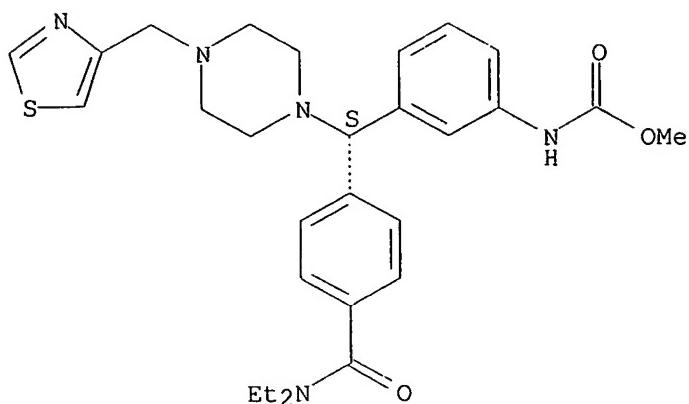
RN 691890-72-9 HCPLUS

CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(4-thiazolylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, trifluoroacetate (5:9) (9CI) (CA INDEX NAME)

CM 1

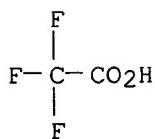
CRN 691890-71-8
 CMF C28 H35 N5 O3 S

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2



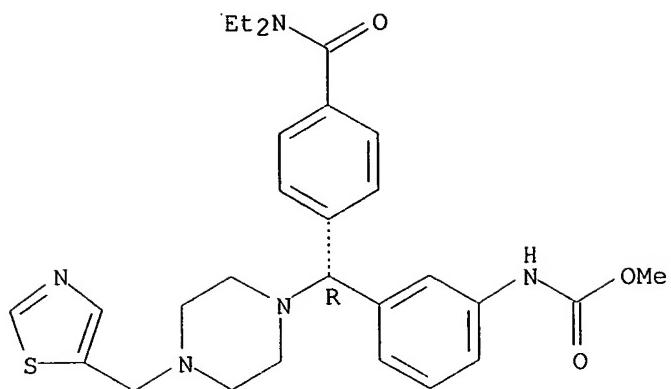
RN 691890-74-1 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(5-thiazolylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, trifluoroacetate (5:13) (9CI) (CA INDEX NAME)

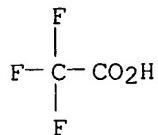
CM 1

CRN 691890-73-0
 CMF C28 H35 N5 O3 S

Absolute stereochemistry. Rotation (-).



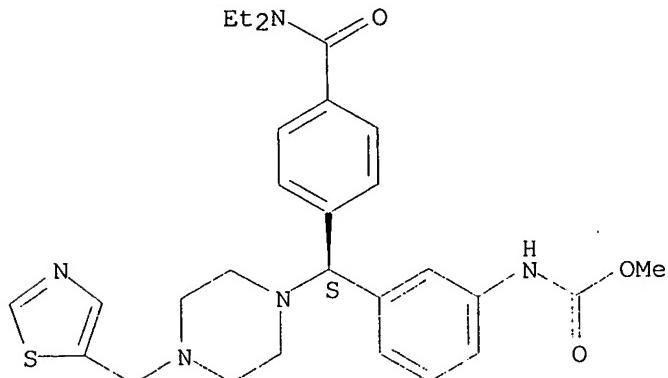
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691890-76-3 HCPLUS
CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(5-thiadiazolylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, trifluoroacetate (9CI) (CA INDEX NAME)

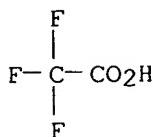
CM 1

CRN 691890-75-2
CMF C28 H35 N5 O3 S

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
CMF C2 H F3 O2

IT 691890-51-4P, (R)-Methyl [3-[[4-[(diethylamino)carbonyl]phenyl](4-benzylpiperazin-1-yl)methyl]phenyl]carbamate 691890-52-5P,
 (S)-Methyl [3-[[4-[(diethylamino)carbonyl]phenyl](4-benzylpiperazin-1-yl)methyl]phenyl]carbamate 691890-53-6P 691890-54-7P
 691890-55-8P 691890-56-9P 691890-57-0P
 691890-58-1P 691890-59-2P 691890-60-5P
 691890-61-6P 691890-62-7P 691890-63-8P
 691890-64-9P 691890-65-0P 691890-66-1P
 691890-68-3P 691890-69-4P 691890-70-7P
 691890-71-8P 691890-73-0P 691890-75-2P
 691890-77-4P, Methyl [3-[[4-[(diethylamino)carbonyl]phenyl](4-benzylpiperazin-1-yl)methyl]phenyl]carbamate 691890-78-5P,
 Methyl [3-[[4-[(diethylamino)carbonyl]phenyl][4-(thien-2-ylmethyl)piperazin-1-yl]methyl]phenyl]carbamate 691890-79-6P,
 Methyl [3-[[4-[(diethylamino)carbonyl]phenyl][4-(thien-3-ylmethyl)piperazin-1-yl]methyl]phenyl]carbamate 691890-80-9P,
 Methyl [3-[[4-[(diethylamino)carbonyl]phenyl][4-(2-furylmethyl)piperazin-1-yl]methyl]phenyl]carbamate 691890-81-0P, Methyl
 [3-[[4-[(diethylamino)carbonyl]phenyl][4-(3-furylmethyl)piperazin-1-yl]methyl]phenyl]carbamate 691890-82-1P, Methyl
 [3-[[4-[(diethylamino)carbonyl]phenyl][4-(1H-imidazol-2-ylmethyl)piperazin-1-yl]methyl]phenyl]carbamate 691890-83-2P, Methyl
 [3-[[4-[(diethylamino)carbonyl]phenyl][4-(pyridin-2-ylmethyl)piperazin-1-yl]methyl]phenyl]carbamate 691890-84-3P, Methyl
 [3-[[4-[(diethylamino)carbonyl]phenyl][4-(pyridin-4-ylmethyl)piperazin-1-yl]methyl]phenyl]carbamate 691890-85-4P, Methyl
 [3-[[4-[(diethylamino)carbonyl]phenyl][4-(1,3-thiazol-2-ylmethyl)piperazin-1-yl]methyl]phenyl]carbamate 691890-86-5P 691890-87-6P
 691890-88-7P 691890-89-8P 691890-90-1P
 691890-91-2P 691890-92-3P 691890-93-4P
 691890-94-5P 691890-95-6P 691890-96-7P
 691890-97-8P 691890-98-9P 691890-99-0P
 691891-00-6P 691891-01-7P 691891-02-8P
 691891-03-9P

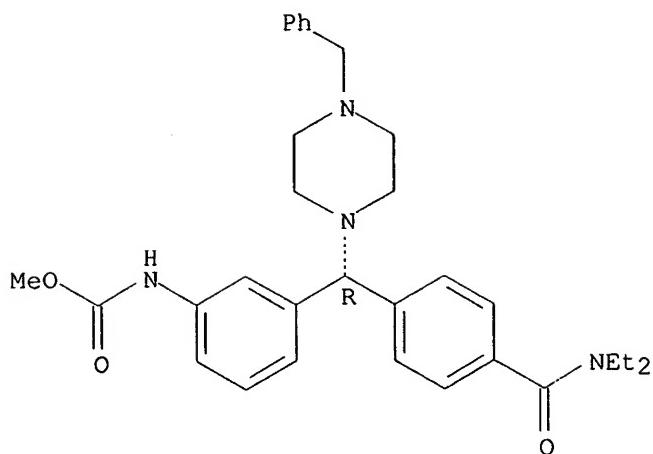
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(δ receptor agonist; preparation of N-[(phenylpiperazinylmethyl)phenyl]carbamates as δ receptor agonists for treatment of pain, anxiety, or gastrointestinal disorders)

RN 691890-51-4 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(phenylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

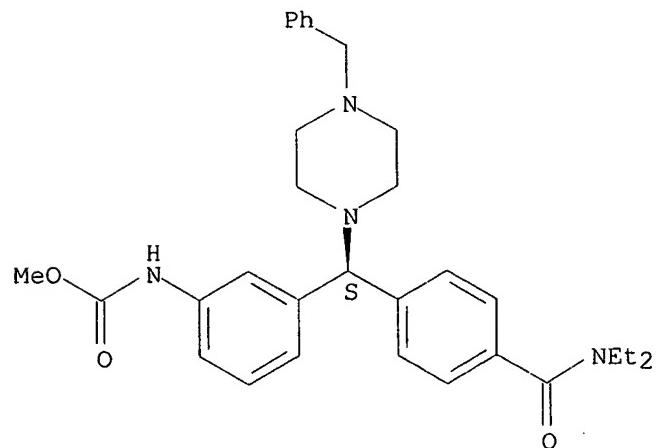
Absolute stereochemistry. Rotation (-).



RN 691890-52-5 HCPLUS

CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(phenylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

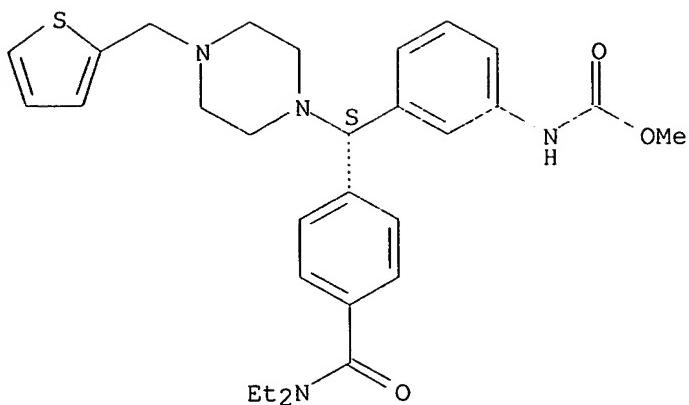
Absolute stereochemistry. Rotation (+).



RN 691890-53-6 HCPLUS

CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(2-thienylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

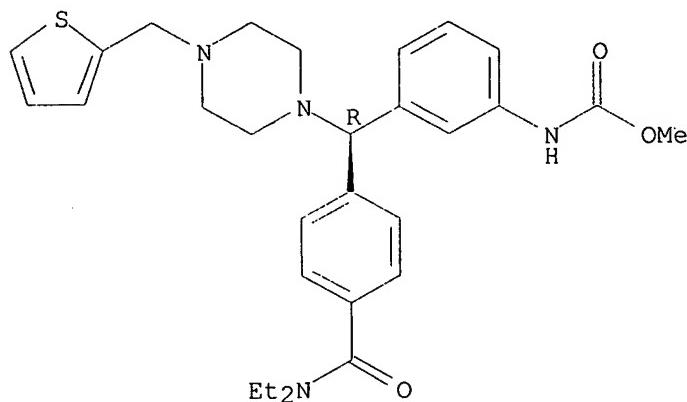
Absolute stereochemistry. Rotation (+).



RN 691890-54-7 HCAPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(2-thienylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

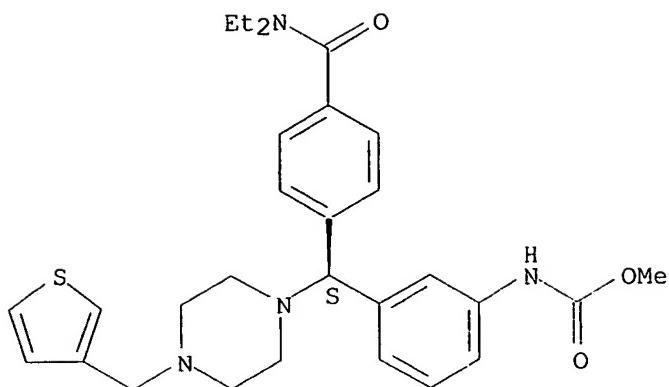
Absolute stereochemistry. Rotation (-).



RN 691890-55-8 HCAPLUS

CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(3-thienylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

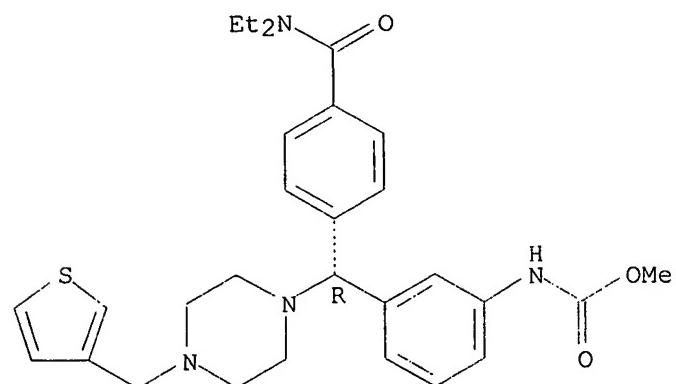
Absolute stereochemistry. Rotation (+).



RN 691890-56-9 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(3-thienylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

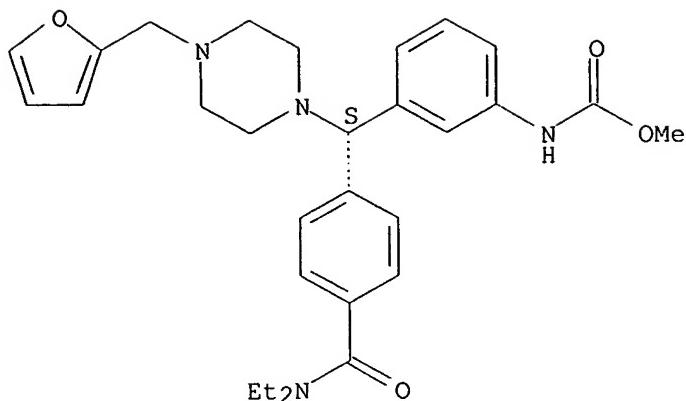
Absolute stereochemistry. Rotation (-).



RN 691890-57-0 HCPLUS

CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(2-furanylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

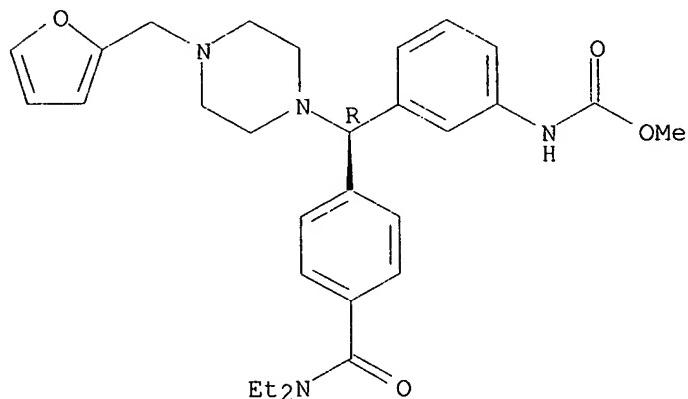
Absolute stereochemistry. Rotation (+).



RN 691890-58-1 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(2-furylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

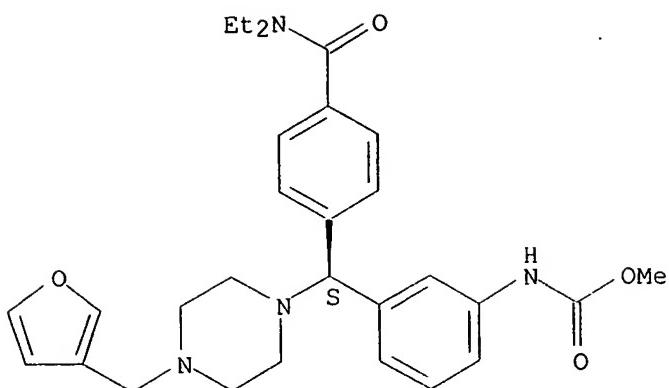
Absolute stereochemistry. Rotation (-).



RN 691890-59-2 HCPLUS

CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(3-furylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

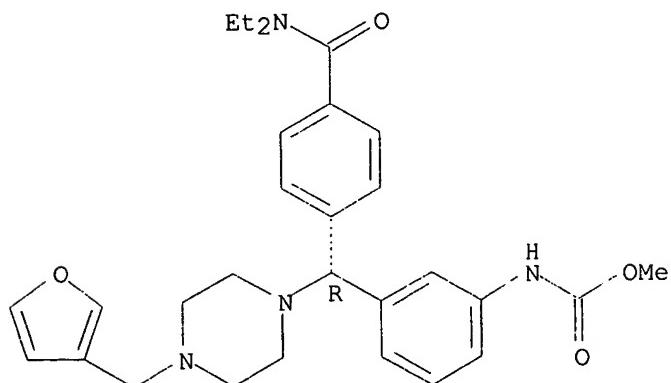
Absolute stereochemistry. Rotation (+).



RN 691890-60-5 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(3-furanyl methyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

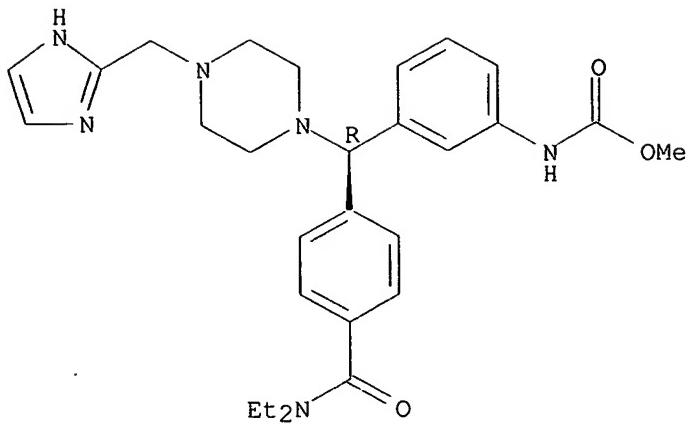
Absolute stereochemistry. Rotation (-).



RN 691890-61-6 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(1H-imidazol-2-ylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

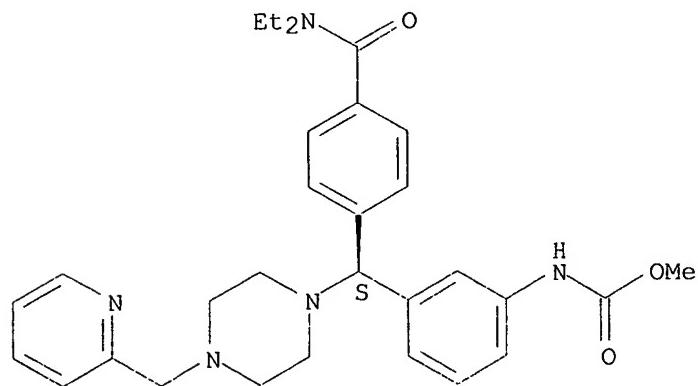
Absolute stereochemistry. Rotation (-).



RN 691890-62-7 HCPLUS

CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(2-pyridinylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

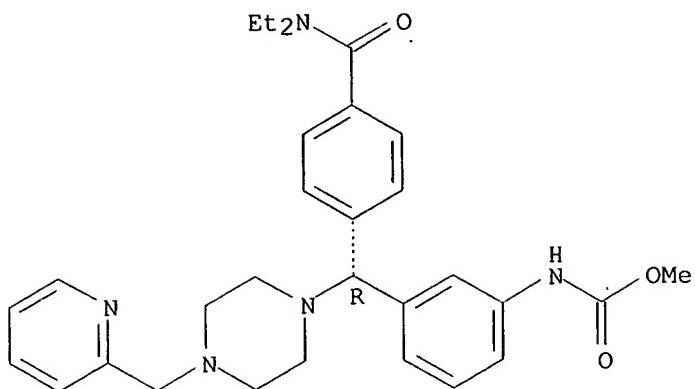
Absolute stereochemistry. Rotation (+).



RN 691890-63-8 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(2-pyridinylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

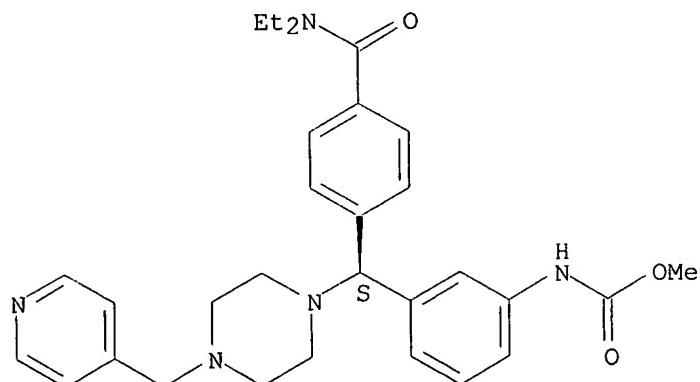
Absolute stereochemistry. Rotation (-).



RN 691890-64-9 HCAPLUS

CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(4-pyridinylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

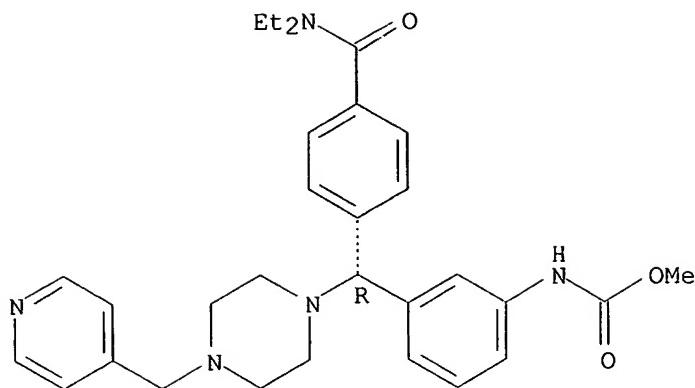
Absolute stereochemistry. Rotation (+).



RN 691890-65-0 HCAPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(4-pyridinylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

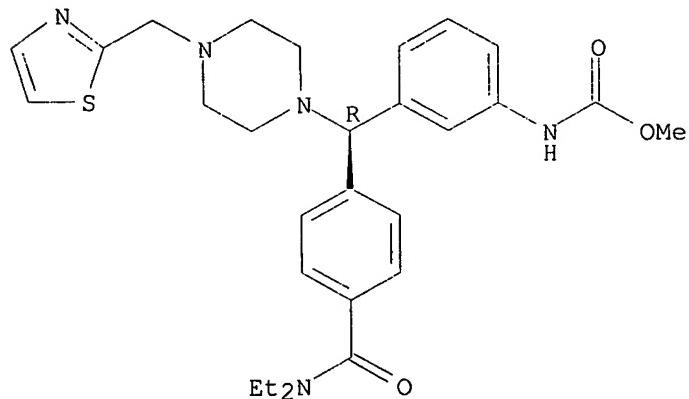
Absolute stereochemistry. Rotation (-).



RN 691890-66-1 HCAPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(2-thiazolylmethyl)-1-piperazinylmethyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

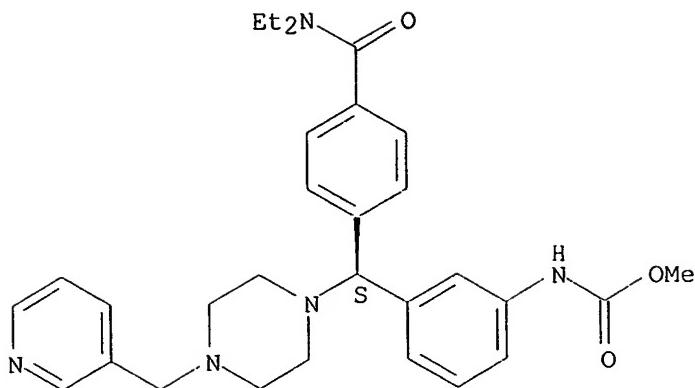
Absolute stereochemistry. Rotation (-).



RN 691890-68-3 HCAPLUS

CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(3-pyridinylmethyl)-1-piperazinylmethyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

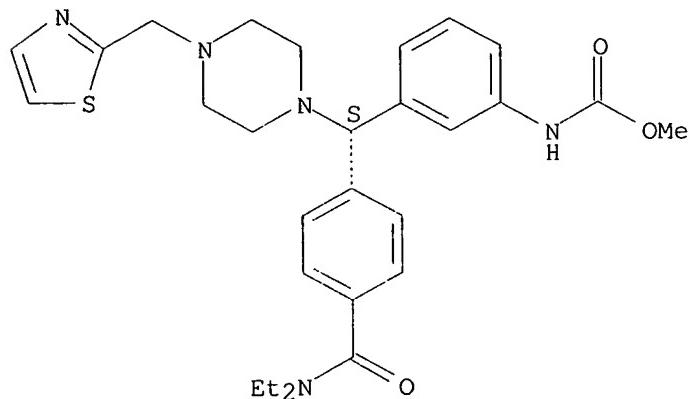
Absolute stereochemistry. Rotation (+).



RN 691890-69-4 HCPLUS

CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(2-thiazolylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

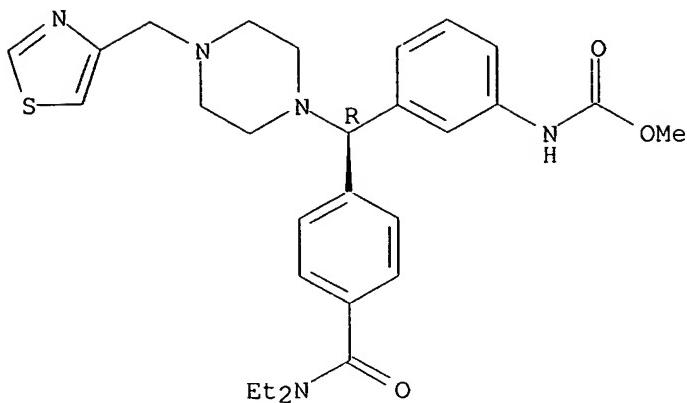
Absolute stereochemistry. Rotation (+).



RN 691890-70-7 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(4-thiazolylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

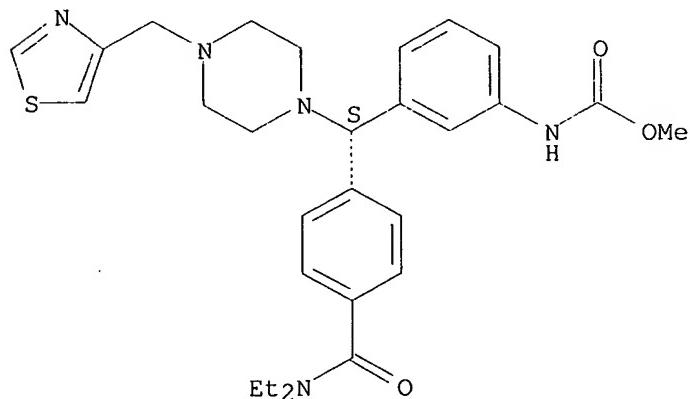
Absolute stereochemistry. Rotation (-).



RN 691890-71-8 HCAPLUS

CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(4-thiazolylmethyl)-1-piperazinylmethyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

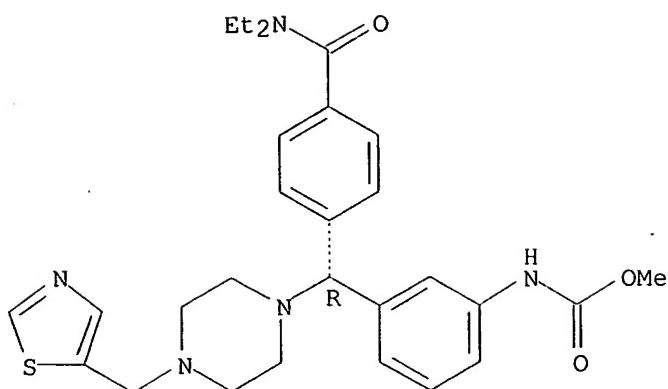
Absolute stereochemistry. Rotation (+).



RN 691890-73-0 HCAPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(5-thiazolylmethyl)-1-piperazinylmethyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

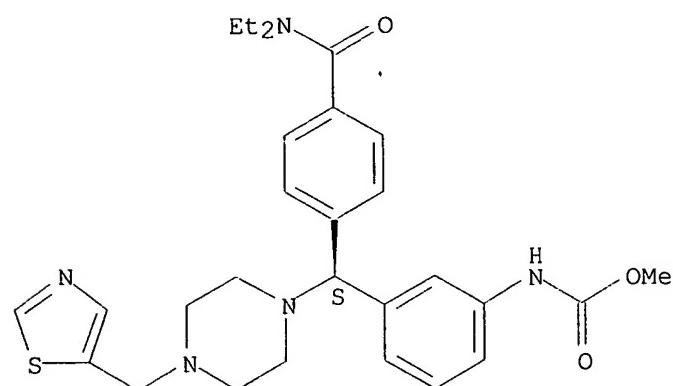
Absolute stereochemistry. Rotation (-).



RN 691890-75-2 HCPLUS

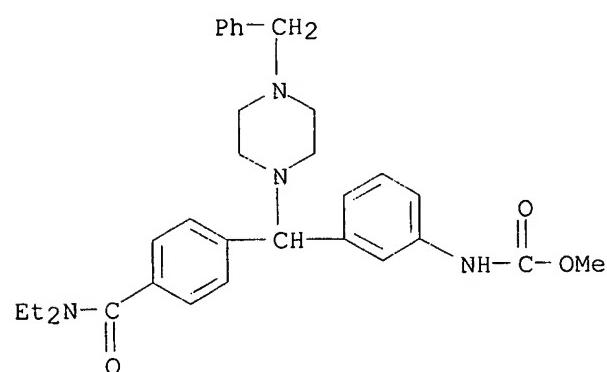
CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(5-thiazolylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

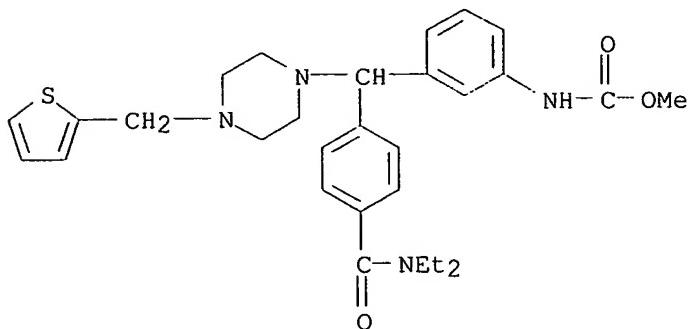


RN 691890-77-4 HCPLUS

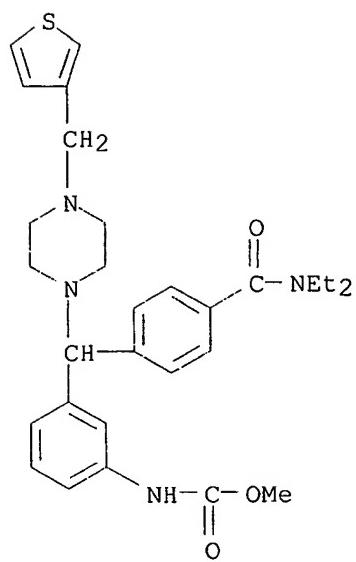
CN Carbamic acid, [3-[[4-[(diethylamino)carbonyl]phenyl][4-(phenylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)



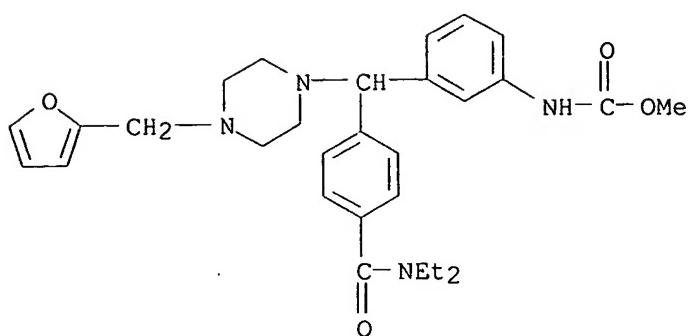
RN 691890-78-5 HCAPLUS
 CN Carbamic acid, [3-[{4-[(diethylamino)carbonyl]phenyl}[4-(2-thienylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 691890-79-6 HCAPLUS
 CN Carbamic acid, [3-[{4-[(diethylamino)carbonyl]phenyl}[4-(3-thienylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

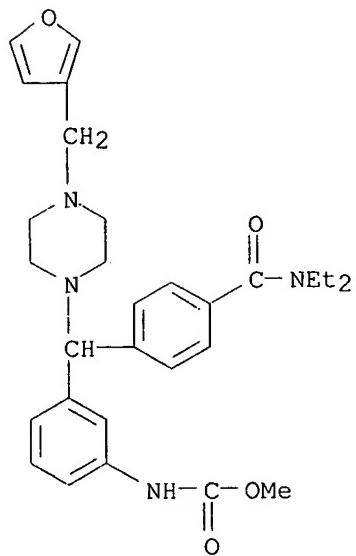


RN 691890-80-9 HCAPLUS
 CN Carbamic acid, [3-[{4-[(diethylamino)carbonyl]phenyl}[4-(2-furanylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)



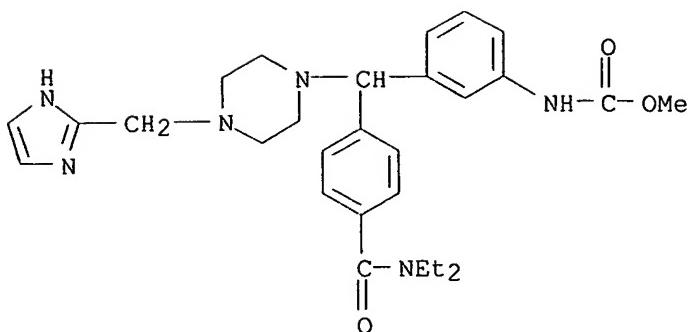
RN 691890-81-0 HCAPLUS

CN Carbamic acid, [3-[[4-[(diethylamino)carbonyl]phenyl][4-(3-furanyl methyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)



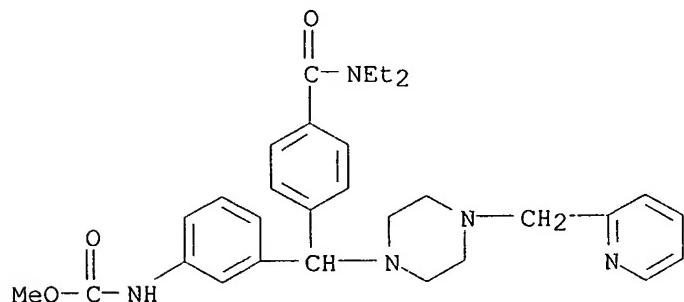
RN 691890-82-1 HCAPLUS

CN Carbamic acid, [3-[[4-[(diethylamino)carbonyl]phenyl][4-(1H-imidazol-2-ylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)



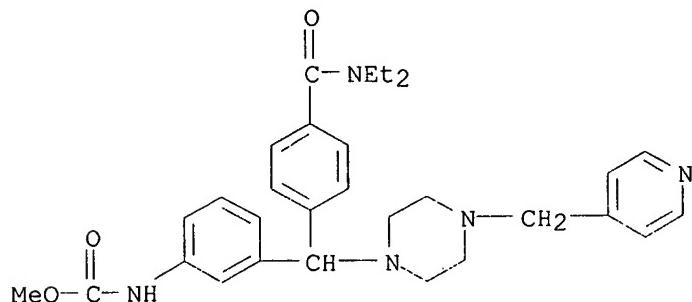
RN 691890-83-2 HCPLUS

CN Carbamic acid, [3-[[4-[(diethylamino)carbonyl]phenyl][4-(2-pyridinylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)



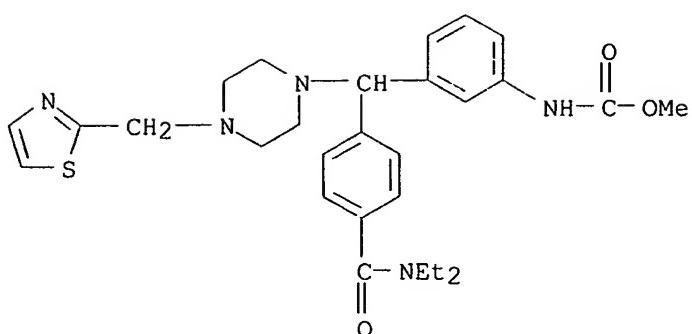
RN 691890-84-3 HCPLUS

CN Carbamic acid, [3-[[4-[(diethylamino)carbonyl]phenyl][4-(4-pyridinylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 691890-85-4 HCPLUS

CN Carbamic acid, [3-[[4-[(diethylamino)carbonyl]phenyl][4-(2-thiazolylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 691890-86-5 HCPLUS

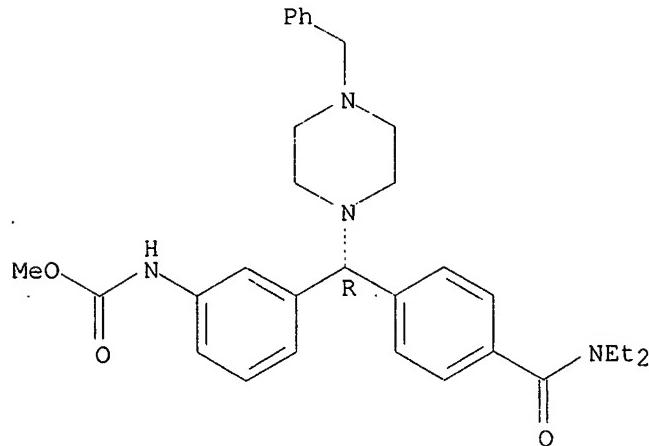
CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(phenylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, trifluoroacetate (10:21) (9CI) (CA INDEX NAME)

CM 1

CRN 691890-51-4

CMF C31 H38 N4 O3

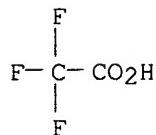
Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1

CMF C2 H F3 O2



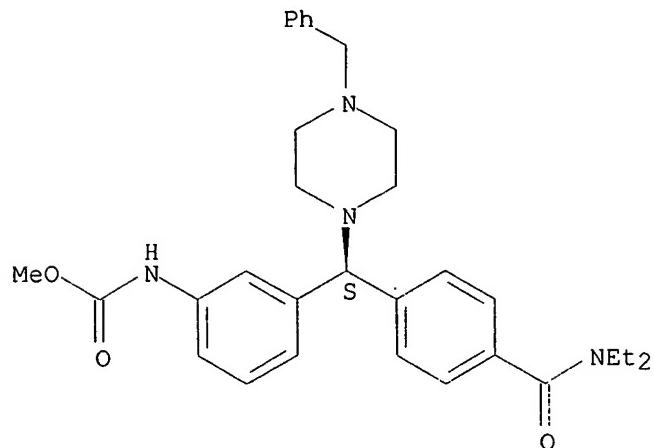
RN 691890-87-6 HCPLUS

CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(phenylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, trifluoroacetate (5:8) (9CI) (CA INDEX NAME)

CM 1

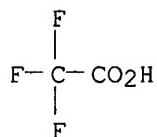
CRN 691890-52-5
CMF C31 H38 N4 O3

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
CMF C2 H F3 O2



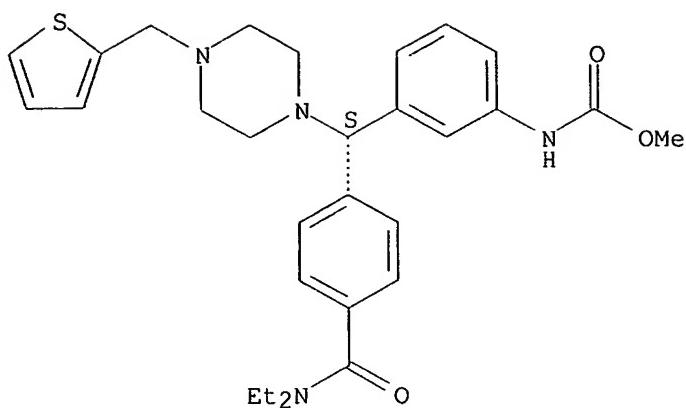
RN 691890-88-7 HCPLUS

CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(2-thienylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, trifluoroacetate (5:7) (9CI) (CA INDEX NAME)

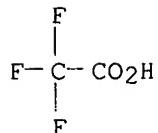
CM 1

CRN 691890-53-6
CMF C29 H36 N4 O3 S

Absolute stereochemistry. Rotation (+).



CM 2

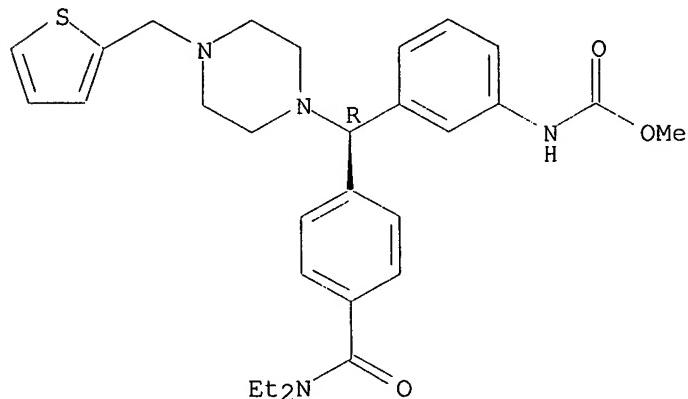
CRN 76-05-1
CMF C2 H F3 O2

RN 691890-89-8 HCPLUS
 CN Carbamic acid, [3-[(R)-[4-[{(diethylamino)carbonyl]phenyl}[4-(2-thienylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, trifluoroacetate (2:3) (9CI) (CA INDEX NAME)

CM 1

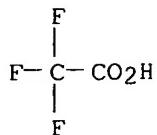
CRN 691890-54-7
CMF C29 H36 N4 O3 S

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

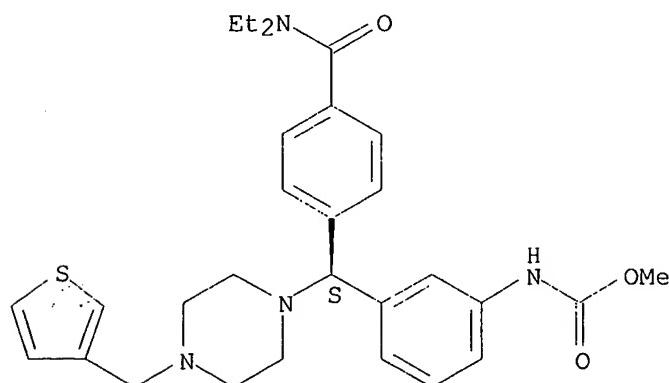


RN 691890-90-1 HCAPLUS
 CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(3-thienylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, trifluoroacetate (10:17) (9CI) (CA INDEX NAME)

CM 1

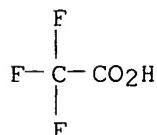
CRN 691890-55-8
 CMF C29 H36 N4 O3 S

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

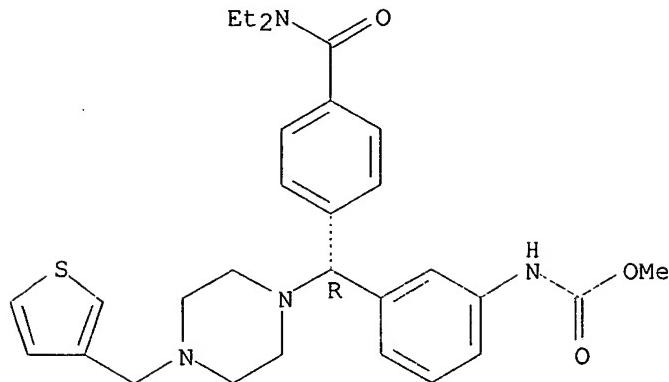


RN 691890-91-2 HCAPLUS
 CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(3-thienylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, trifluoroacetate (5:7) (9CI) (CA INDEX NAME)

CM 1

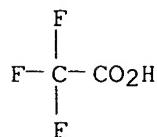
CRN 691890-56-9
 CMF C29 H36 N4 O3 S

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

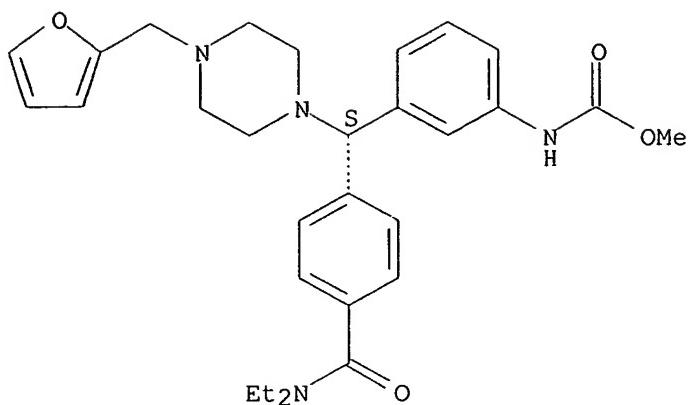


RN 691890-92-3 HCAPLUS
 CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(2-furylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, trifluoroacetate (2:3) (9CI) (CA INDEX NAME)

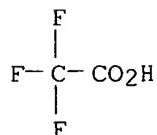
CM 1

CRN 691890-57-0
 CMF C29 H36 N4 O4

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
CMF C2 H F3 O2

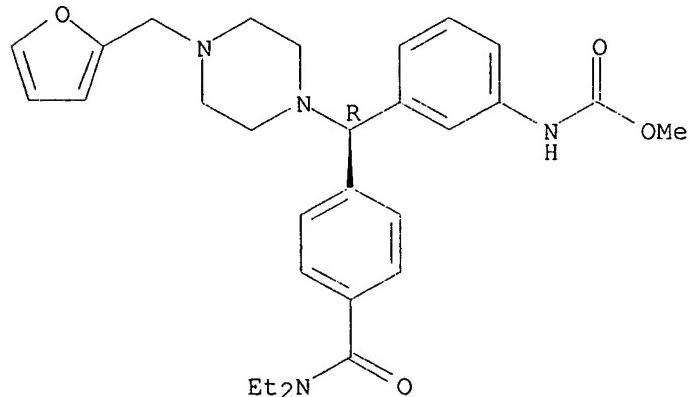
RN 691890-93-4 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(2-furanylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, trifluoroacetate (5:8) (9CI) (CA INDEX NAME)

CM 1

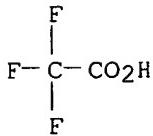
CRN 691890-58-1
CMF C29 H36 N4 O4

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

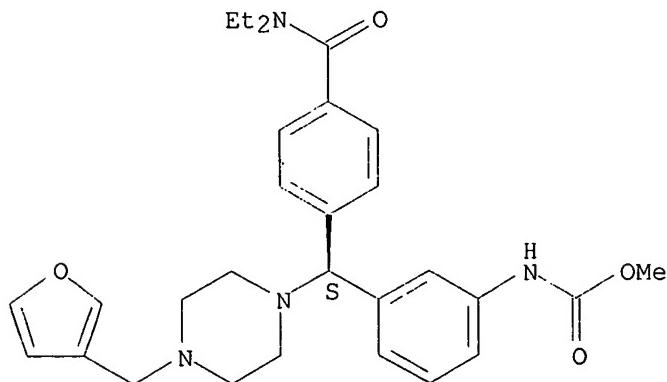


RN 691890-94-5 HCPLUS
 CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(3-furanyl methyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

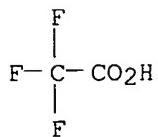
CRN 691890-59-2
 CMF C29 H36 N4 O4

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

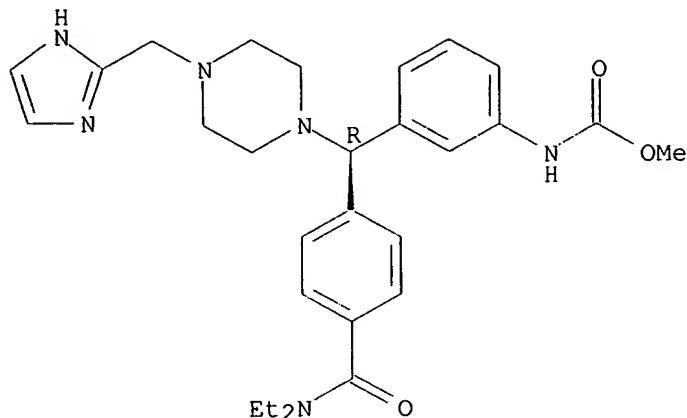


RN 691890-95-6 HCPLUS
 CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(1H-imidazol-2-ylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, trifluoroacetate (10:21) (9CI) (CA INDEX NAME)

CM 1

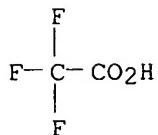
CRN 691890-61-6
 CMF C28 H36 N6 O3

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

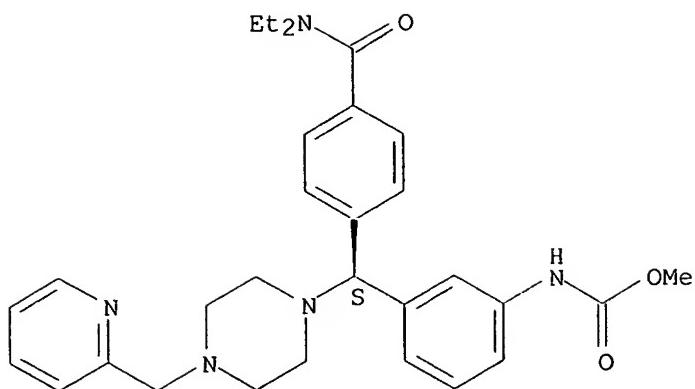


RN 691890-96-7 HCPLUS
 CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(2-pyridinylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, trifluoroacetate (2:3) (9CI) (CA INDEX NAME)

CM 1

CRN 691890-62-7
 CMF C30 H37 N5 O3

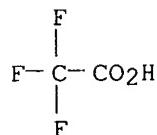
Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 691890-97-8 HCPLUS

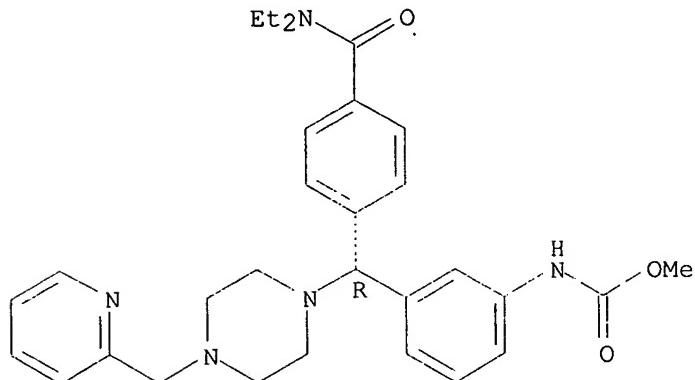
CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(2-pyridinylmethyl)-1-piperazinylmethyl]phenyl]-, methyl ester, trifluoroacetate (10:17) (9CI) (CA INDEX NAME)

CM 1

CRN 691890-63-8

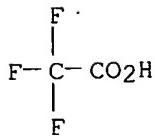
CMF C30 H37 N5 O3

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

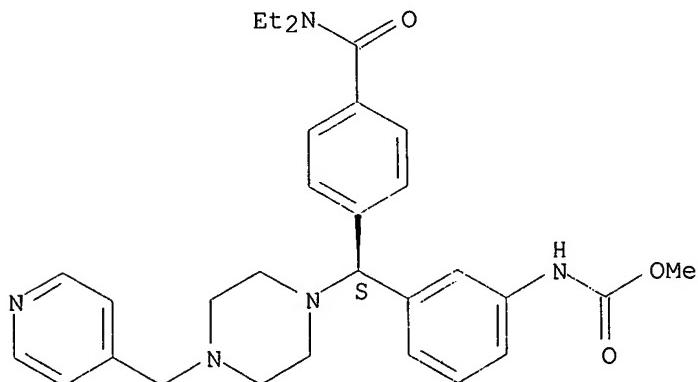


RN 691890-98-9 HCAPLUS
 CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(4-pyridinylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, trifluoroacetate (10:19) (9CI) (CA INDEX NAME)

CM 1

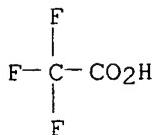
CRN 691890-64-9
 CMF C30 H37 N5 O3

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

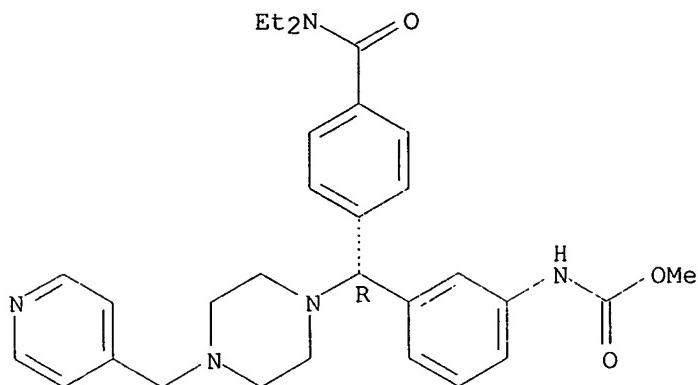


RN 691890-99-0 HCAPLUS
 CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(4-pyridinylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, trifluoroacetate (5:13) (9CI) (CA INDEX NAME)

CM 1

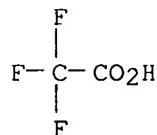
CRN 691890-65-0
 CMF C30 H37 N5 O3

Absolute stereochemistry. Rotation (-).



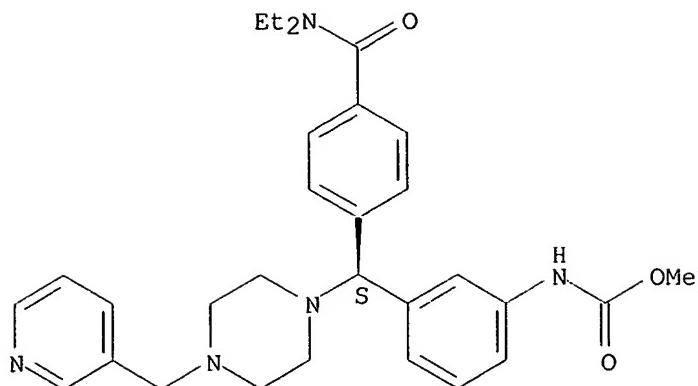
CM 2

CRN 76-05-1
 CMF C2 H F3 O2



RN 691891-00-6 HCAPLUS
 CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(3-pyridinylmethyl)-1-piperazinylmethyl]phenyl]-, methyl ester, hydrochloride (10:29) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

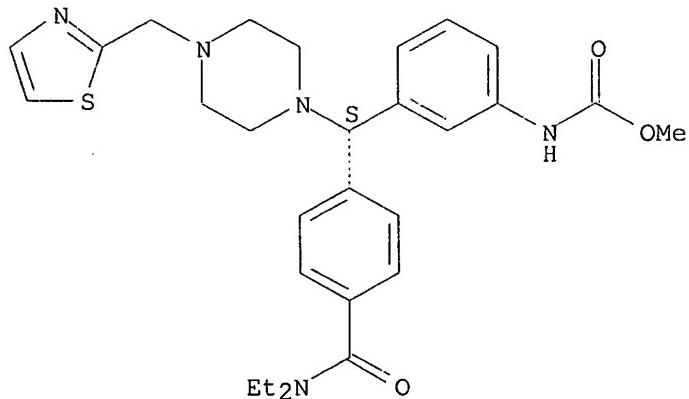


● 29/10 HCl

RN 691891-01-7 HCPLUS

CN Carbamic acid, [3-[(S)-[4-[(diethylamino)carbonyl]phenyl][4-(2-thiazolylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, hydrochloride (2:3) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



● 3/2 HCl

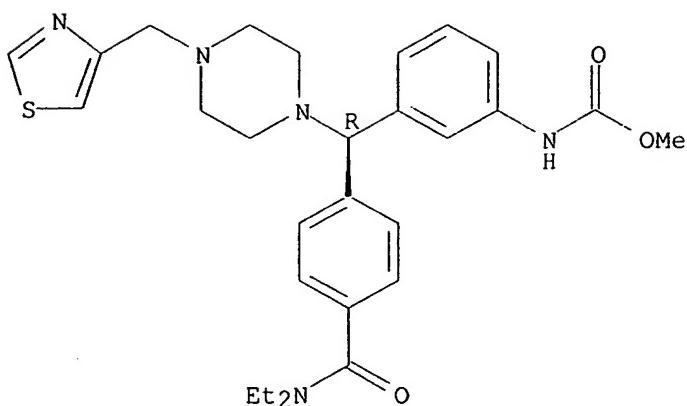
RN 691891-02-8 HCPLUS

CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(4-thiazolylmethyl)-1-piperazinyl]methyl]phenyl]-, methyl ester, trifluoroacetate (9CI) (CA INDEX NAME)

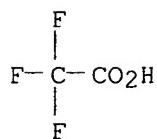
CM 1

CRN 691890-70-7
CMF C28 H35 N5 O3 S

Absolute stereochemistry. Rotation (-).



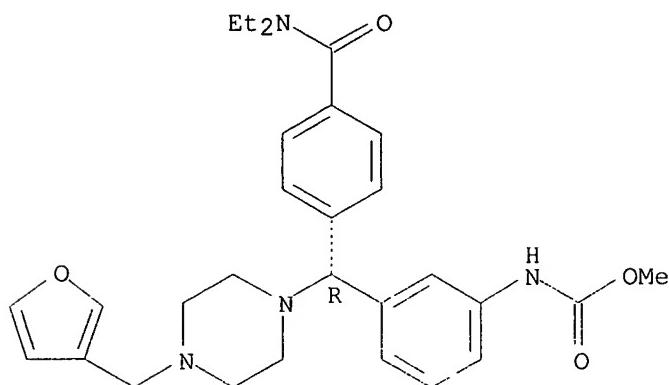
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691891-03-9 HCPLUS
CN Carbamic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][4-(3-furanyl methyl)-1-piperazinylmethyl]phenyl]-, methyl ester, trifluoroacetate (2:3) (9CI) (CA INDEX NAME)

CM 1

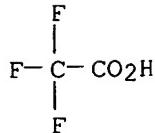
CRN 691890-60-5
CMF C29 H36 N4 O4

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2



L11 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:412931 HCAPLUS
 DOCUMENT NUMBER: 140:423708
 TITLE: Preparation of 4-(phenylpiperazinylmethyl)benzamides
 for treatment of pain, anxiety, or gastrointestinal
 disorders
 INVENTOR(S): Brown, William; Griffin, Andrew
 PATENT ASSIGNEE(S): AstraZeneca AB, Swed.
 SOURCE: PCT Int. Appl., 127 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004041801	A1	20040521	WO 2003-SE1706	20031105 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003278664	A1	20040607	AU 2003-278664	20031105 <--
EP 1562923	A1	20050817	EP 2003-770197	20031105 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006508946	T2	20060316	JP 2004-549775	20031105 <--
PRIORITY APPLN. INFO.:			SE 2002-3302	A 20021107 <--
			WO 2003-SE1706	W 20031105 <--

OTHER SOURCE(S): MARPAT 140:423708
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

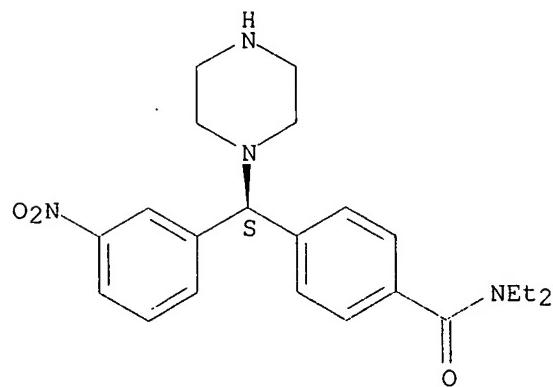
AB Title compds. I [wherein R1 = (un)substituted alkyl or cycloalkyl(alkyl),
 (hetero)aryl, R8CO, R8SO₂, R8SO, R8NHCO, R8CS, or R8NHCS; ; R2 = H or
 (un)substituted alkyl; R3 = H or (un)substituted alkoxy carbonyl, alkyl, or

cycloalkyl(alkyl); R8 = (un)substituted alkyl, (hetero)aryl(alkyl), or cycloalkyl(alkyl); or pharmaceutically acceptable salts thereof] were prepared as opioid δ receptor ligands. For example, amidation of 4-iodobenzoyl chloride with Et₂NH using TEA in CH₂Cl₂ provided 4-iodo-N,N-diethylbenzamide, which was coupled with 3-nitrobenzaldehyde in the presence of BuLi in THF to give 4-[hydroxy(3-nitrophenyl)methyl]-N,N-diethylbenzamide (50%). Reaction with thionyl bromide in CH₂Cl₂, followed by substitution with piperazine in MeCN and enantiomeric separation using di-p-toluoyl-D-tartaric acid, afforded N,N-diethyl-4-[(S)-(3-nitrophenyl)(1-piperazinyl)methyl]benzamide. N-protection with di-tert-Bu dicarbonate, alkylation with 2-thiazolecarboxaldehyde in the presence of Na triacetoxyborohydride in ClCH₂CH₂Cl, and deprotection using TFA gave (S)-II. In binding assays using human 293S cells expressing cloned human opioid receptors and neomycin resistance, most compds. of the invention exhibited activity toward the δ receptor with IC₅₀ values in the range of 0.15 nM - 30.4 nM with an average of 2.30 nM. Exemplified compds. also showed some activity toward the κ and μ receptors with IC₅₀ values in the ranges of 320 nM - 8457 nM and 16 nM - 9560 nM, resp. Thus, I and their pharmaceutical compns. are useful in therapy, in particular for the treatment of gastrointestinal disorders, anxiety, or pain (no data).

IT 691877-62-0P, (S)-N,N-Diethyl-4-[(3-nitrophenyl)(1-piperazinyl)methyl]benzamide 691877-63-1P, (R)-N,N-Diethyl-4-[(3-nitrophenyl)(1-piperazinyl)methyl]benzamide
 RL: PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; preparation of (phenylpiperazinylmethyl)benzamides as δ receptor agonists for treatment of pain, anxiety, or gastrointestinal disorders)

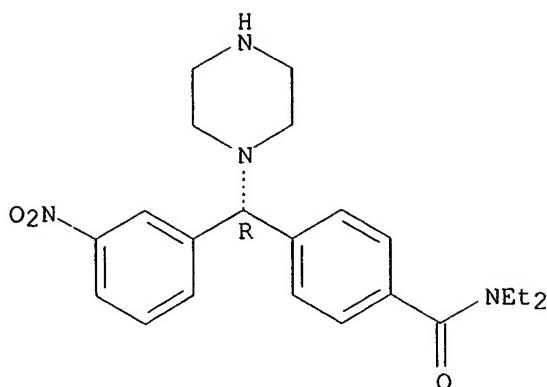
RN 691877-62-0 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-(3-nitrophenyl)-1-piperazinylmethyl]- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 691877-63-1 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-(3-nitrophenyl)-1-piperazinylmethyl]- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

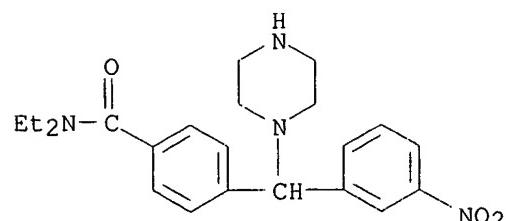


IT 477191-80-3P, N,N-Diethyl-4-[(3-nitrophenyl)(1-piperazinyl)methyl]benzamide 691877-64-2P, tert-Butyl (S)-4-[(3-aminophenyl)[4-[(diethylamino)carbonyl]phenyl]methyl]piperazine-1-carboxylate 691877-65-3P, tert-Butyl (R)-4-[(3-aminophenyl)[4-[(diethylamino)carbonyl]phenyl]methyl]piperazine-1-carboxylate 691877-66-4P, tert-Butyl (R)-4-[(3-anilinophenyl)[4-[(diethylamino)carbonyl]phenyl]methyl]piperazine-1-carboxylate 691877-67-5P, tert-Butyl (S)-4-[(3-anilinophenyl)[4-[(diethylamino)carbonyl]phenyl]methyl]piperazine-1-carboxylate 691878-43-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of (phenylpiperazinylmethyl)benzamides as δ receptor agonists for treatment of pain, anxiety, or gastrointestinal disorders)

RN 477191-80-3 HCPLUS

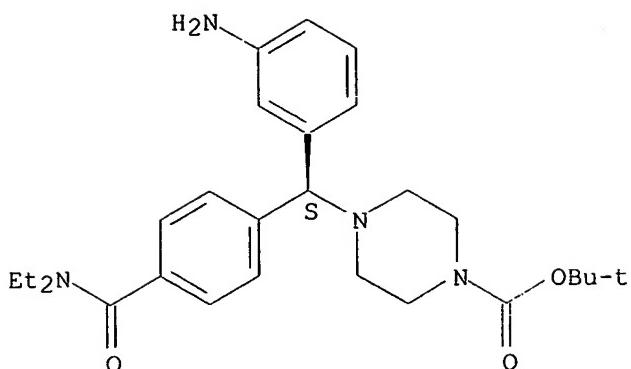
CN Benzamide, N,N-diethyl-4-[(3-nitrophenyl)-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)



RN 691877-64-2 HCPLUS

CN 1-Piperazinecarboxylic acid, 4-[(S)-(3-aminophenyl)[4-[(diethylamino)carbonyl]phenyl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

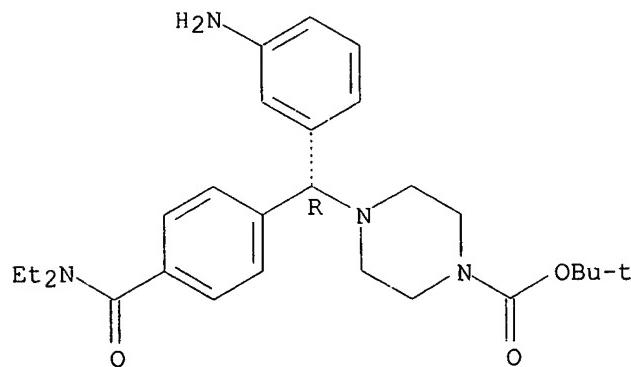
Absolute stereochemistry.



RN 691877-65-3 HCAPLUS

CN 1-Piperazinecarboxylic acid, 4-[(R)-(3-aminophenyl)[4-[(diethylamino)carbonyl]phenyl]methyl]-, 1,1-dimethylethyl ester (9CI)
(CA INDEX NAME)

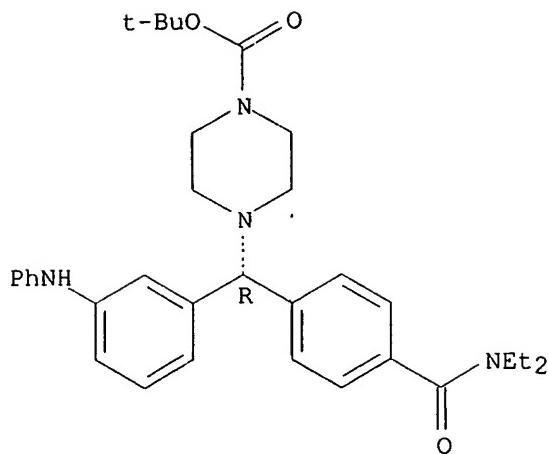
Absolute stereochemistry.



RN 691877-66-4 HCAPLUS

CN 1-Piperazinecarboxylic acid, 4-[(R)-[4-[(diethylamino)carbonyl]phenyl][3-(phenylamino)phenyl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

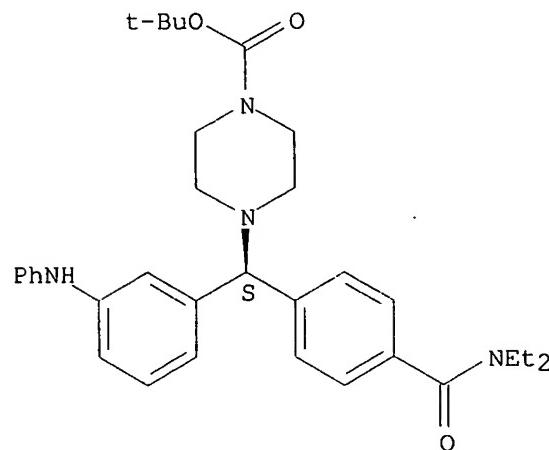
Absolute stereochemistry.



RN 691877-67-5 HCPLUS

CN 1-Piperazinecarboxylic acid, 4-[(S)-[4-[(diethylamino)carbonyl]phenyl][3-(phenylamino)phenyl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

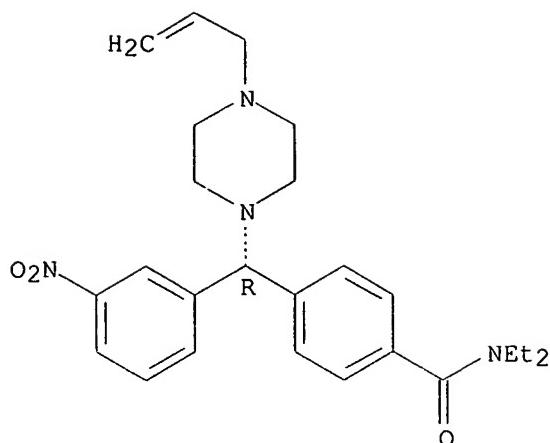
Absolute stereochemistry.



RN 691878-43-0 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-(3-nitrophenyl)[4-(2-propenyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 691878-39-4P, (S)-4-[[3-(Cycloheptylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide

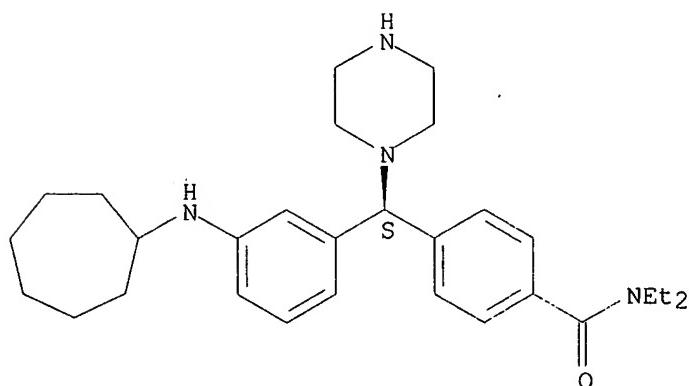
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(δ receptor agonist; 00000prepn. of (phenylpiperazinylmethyl)benz amides as δ receptor agonists for treatment of pain, anxiety, or gastrointestinal disorders)

RN 691878-39-4 HCAPLUS

CN Benzamide, 4-[(S)-[3-(cycloheptylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT 691877-84-6P, (S)-N,N-Diethyl-4-[(piperazin-1-yl)[3-[(1,3-thiazol-2-ylmethyl)amino]phenyl]methyl]benzamide trifluoroacetate (1:1.6)

691877-93-7P, (S)-4-[[3-(Cyclohexylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-16-7P,

(S)-N,N-Diethyl-4-[(1-piperazinyl)[3-(propylamino)phenyl]methyl]benzamide trifluoroacetate (1:2.4) 691878-17-8P, (S)-4-[[3-

(Dipropylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate 691878-18-9P, (R)-N,N-Diethyl-4-[(1-

piperazinyl)[3-(propylamino)phenyl]methyl]benzamide 691878-20-3P

, (R)-N,N-Diethyl-4-[(1-piperazinyl)[3-(propylamino)phenyl]methyl]benzamide trifluoroacetate (1:3.6) 691878-22-5P, (S)-N,N-Diethyl-4-[(1-

piperazinyl){3-[[4-(3-pyridinyl)phenyl]methyl]amino}phenyl]methyl]benzamide trifluoroacetate (1:3.3) 691878-24-7P, (S)-N,N-Diethyl-4-[[3-[[4-(1H-imidazol-1-yl)phenyl]methyl]amino]phenyl]piperazin-1-ylmethyl]benzamide trifluoroacetate (1:3) 691878-26-9P, (S)-N,N-Diethyl-4-[(1-piperazinyl){3-[(2-quinolinylmethyl)amino]phenyl}methyl]benzamide trifluoroacetate (1:3.6) 691878-28-1P, (R)-4-[[3-[(2,2-Diphenylethyl)amino]phenyl]piperazin-1-ylmethyl]-N,N-diethylbenzamide trifluoroacetate (1:2.8) 691878-30-5P 691878-32-7P, (R)-N,N-Diethyl-4-[[3-[(4-phenoxyphenyl)methyl]amino]phenyl](piperazin-1-yl)methyl]benzamide trifluoroacetate (1:2.3) 691878-34-9P, (R)-4-[(3-Aminophenyl)[4-(2-methoxyethyl)piperazin-1-yl]methyl]-N,N-diethylbenzamide 691878-35-0P, (R)-4-[(3-Aminophenyl)[4-(3-methoxypropyl)piperazin-1-yl]methyl]-N,N-diethylbenzamide 691878-38-3P, (R)-N,N-Diethyl-4-[[4-(3-methoxypropyl)-1-piperazinyl][3-(propylamino)phenyl]methyl]benzamide trifluoroacetate (1:2) 691878-42-9P, (R)-4-[(3-Aminophenyl)[4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethylbenzamide 691878-44-1P, (R)-4-[(3-Aminophenyl)[4-(3-methyl-2-butenyl)-1-piperazinyl]methyl]-N,N-diethylbenzamide 691878-45-2P, (R)-4-[(3-Aminophenyl)[4-(cyclopropylmethyl)-1-piperazinyl]methyl]-N,N-diethylbenzamide 691878-61-2P, (R)-N,N-Diethyl-4-[(piperazin-1-yl){3-[(1,3-thiazol-2-ylmethyl)amino]phenyl}methyl]benzamide trifluoroacetate (1:2.4) 691878-62-3P, (S)-4-[[3-(Benzylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.6) 691878-63-4P, (R)-N,N-Diethyl-4-[(piperazin-1-yl){3-[(thien-2-ylmethyl)amino]phenyl}methyl]benzamide trifluoroacetate (1:2) 691878-64-5P, (S)-N,N-Diethyl-4-[(piperazin-1-yl){3-[(thien-2-ylmethyl)amino]phenyl}methyl]benzamide trifluoroacetate (1:3) 691878-65-6P, (S)-N,N-Diethyl-4-[[3-[(2-furylmethyl)amino]phenyl](piperazin-1-yl)methyl]benzamide trifluoroacetate (1:2.5) 691878-66-7P, (R)-N,N-Diethyl-4-[[3-[(2-furylmethyl)amino]phenyl](piperazin-1-yl)methyl]benzamide trifluoroacetate (1:3) 691878-67-8P, (R)-N,N-Diethyl-4-[(piperazin-1-yl)[3-[(thien-3-ylmethyl)amino]phenyl]methyl]benzamide trifluoroacetate (1:2) 691878-68-9P, (S)-N,N-Diethyl-4-[(piperazin-1-yl){3-[(thien-3-ylmethyl)amino]phenyl}methyl]benzamide trifluoroacetate (1:2.8) 691878-69-0P, (R)-N,N-Diethyl-4-[[3-[(3-furylmethyl)amino]phenyl](piperazin-1-yl)methyl]benzamide trifluoroacetate (1:1.8) 691878-70-3P, (R)-N,N-Diethyl-4-[[3-[(2-phenylethyl)amino]phenyl](piperazin-1-yl)methyl]benzamide trifluoroacetate (1:1.9) 691878-71-4P, (R)-N,N-Diethyl-4-[(piperazin-1-yl){3-[(4-trifluoromethylbenzyl)amino]phenyl}methyl]benzamide trifluoroacetate (1:1.4) 691878-72-5P, (S)-4-[[3-[(Cyclohexylmethyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.8) 691878-73-6P, (R)-4-[[3-[(Cyclohex-1-en-1-ylmethyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.9) 691878-75-8P 691878-76-9P, (R)-4-[[3-(Cyclopentylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.6) 691878-77-0P 691878-78-1P, (R)-4-[[3-(Cyclooctylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.6) 691878-79-2P, (R)-4-[[3-(Cyclononylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.6) 691878-80-5P, (S)-4-[[3-(Cyclohexylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.5) 691878-81-6P, (R)-4-[[3-(Benzoylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:1.6) 691878-82-7P, (R)-N,N-Diethyl-4-[[3-[(phenylacetyl)amino]phenyl](piperazin-1-yl)methyl]benzamide trifluoroacetate (1:0.9)

691878-83-8P, (S)-4-[[3-(Benzoylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:1.9)
 691878-84-9P, (S)-N,N-Diethyl-4-[[3-[(phenylacetyl)amino]phenyl](piperazin-1-yl)methyl]benzamide trifluoroacetate (1:1.8)
 691878-85-0P, (R)-N,N-Diethyl-4-[[3-[(2-methyl-2-phenylpropanoyl)amino]phenyl](piperazin-1-yl)methyl]benzamide trifluoroacetate (1:1.5) 691878-86-1P, (R)-N,N-Diethyl-4-[[3-[(3-fluorophenyl)acetyl]amino]phenyl](piperazin-1-yl)methyl]benzamide trifluoroacetate (1:1.4) 691878-87-2P, (R)-4-[[3-[(Benzylsulfonyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:0.6) 691878-89-4P, (S)-N,N-Diethyl-4-[[3-[(phenylsulfonyl)amino]phenyl](piperazin-1-yl)methyl]benzamide trifluoroacetate (1:1.9) 691878-90-7P, (R)-4-[[3-[(Anilinocarbonyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2) 691878-91-8P, (R)-4-[[3-(Dipropylamino)(piperazin-1-yl)phenyl]methyl]-N,N-diethylbenzamide trifluoroacetate (1:4.2) 691878-92-9P, (R)-N,N-Diethyl-4-[[4-(2-propenyl)-1-piperazinyl][3-(propylamino)phenyl]methyl]benzamide trifluoroacetate (1:2.7)
 691878-93-0P, (R)-4-[(3-Aminophenyl)[4-(2-methoxyethyl)piperazin-1-yl]methyl]-N,N-diethylbenzamide hydrochloride (1:3.2) 691878-94-1P, (R)-4-[(3-Aminophenyl)[4-(3-methoxypropyl)piperazin-1-yl]methyl]-N,N-diethylbenzamide tetrahydrochloride 691878-95-2P, (R)-N,N-Diethyl-4-[[4-(2-methoxyethyl)-1-piperazinyl][3-(propylamino)phenyl]methyl]benzamide trifluoroacetate (1:2.6)
 691878-96-3P, (S)-4-[[3-(Cycloheptylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.9)
 691878-97-4P, (S)-4-[[3-(Cyclooctylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.8)
 691878-98-5P, (R)-4-[(3-Aminophenyl)[4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethylbenzamide trihydrochloride
 691878-99-6P, (R)-4-[(3-Aminophenyl)[4-(3-methyl-2-butenyl)-1-piperazinyl]methyl]-N,N-diethylbenzamide hydrochloride (1:3.8)
 691879-00-2P, (R)-N,N-Diethyl-4-[[4-(2-propenyl)-1-piperazinyl][3-[(2-thienyl)methyl]amino]phenyl]methyl]benzamide trifluoroacetate (1:2.3)
 691879-01-3P, (R)-N,N-Diethyl-4-[[4-(3-methyl-2-but enyl)-1-piperazinyl][3-[(2-thienyl)methyl]amino]phenyl]methyl]benzamide trifluoroacetate (1:1.4) 691879-02-4P, (R)-4-[[4-(Cyclopropylmethyl)-1-piperazinyl][3-[(2-thienylmethyl)amino]phenyl]methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.4) 691879-03-5P, (S)-4-[[3-(Cyclohexylamino)phenyl][4-(cyclopropylmethyl)piperazin-1-yl]methyl]-N,N-diethylbenzamide hydrochloride (1:3.2) 691879-04-6P, (S)-4-[[3-(Cyclohexylamino)phenyl](4-propylpiperazin-1-yl)methyl]-N,N-diethylbenzamide hydrochloride (1:4.3) 691879-05-7P, (S)-4-[[3-(Cyclohexylamino)phenyl](4-ethylpiperazin-1-yl)methyl]-N,N-diethylbenzamide pentahydrochloride 691879-06-8P, (S)-4-[(4-Allylpiperazin-1-yl)[3-(cyclohexylamino)phenyl]methyl]-N,N-diethylbenzamide hydrochloride (1:4.4) 691879-07-9P, (S)-4-[[3-[(Cyclohexylcarbonyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide tetrahydrochloride 691879-08-0P, (S)-4-[[3-[(Cyclohexylacetyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide hydrochloride (1:0.4) 691879-09-1P, (S)-4-[[3-[(Cyclohexyl(methyl)amino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide hydrochloride (1:4.1) 691879-10-4P, (R)-4-[[3-[(Cyclohexyl(methyl)amino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide hydrochloride (1:4.8) 691879-17-1P, (R)-4-[(3-Aminophenyl)[4-(cyclopropylmethyl)-1-piperazinyl]methyl]-N,N-diethylbenzamide hydrochloride (1:3.8) 693259-21-1P, (R)-4-[[3-(Benzylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:1.8)

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(δ receptor agonist; preparation of (phenylpiperazinylmethyl)benzamide as δ receptor agonists for treatment of pain, anxiety, or gastrointestinal disorders)

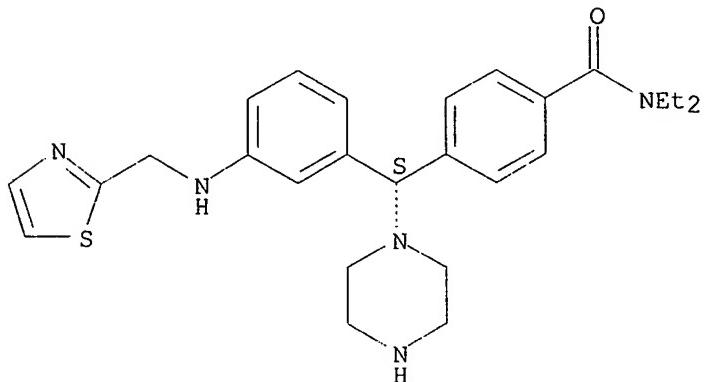
RN 691877-84-6 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-[(2-thiazolylmethyl)amino]phenyl]methyl]-, trifluoroacetate (5:8) (9CI) (CA INDEX NAME)

CM 1

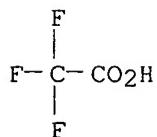
CRN 691877-68-6
CMF C26 H33 N5 O S

Absolute stereochemistry.



CM 2

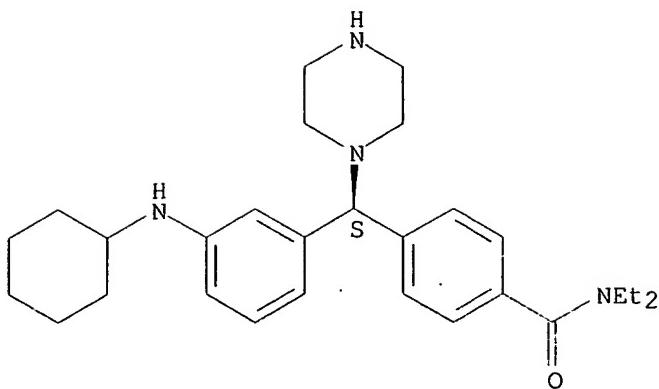
CRN 76-05-1
CMF C2 H F3 O2



RN 691877-93-7 HCAPLUS

CN Benzamide, 4-[(S)-[3-(cyclohexylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 691878-16-7 HCPLUS

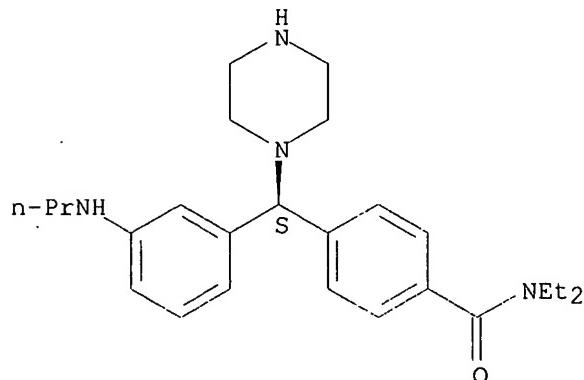
CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-(propylamino)phenyl]methyl]-, trifluoroacetate (5:12) (9CI) (CA INDEX NAME)

CM 1

CRN 691878-14-5

CMF C25 H36 N4 O

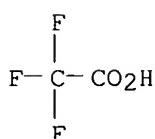
Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 691878-17-8 HCPLUS

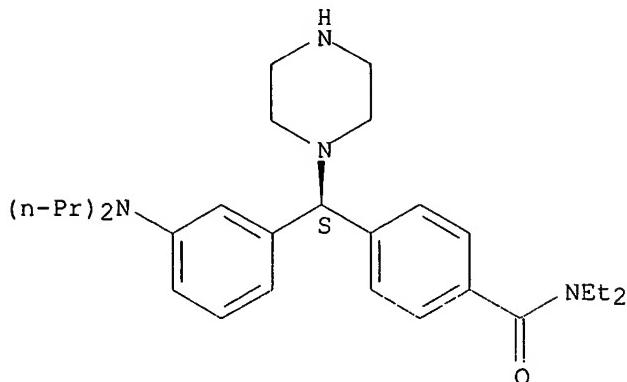
CN Benzamide, 4-[(S)-[3-(dipropylamino)phenyl]-1-piperazinylmethyl]-N,N-

diethyl-, trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

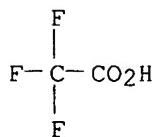
CRN 691878-15-6
CMF C28 H42 N4 O

Absolute stereochemistry.



CM 2

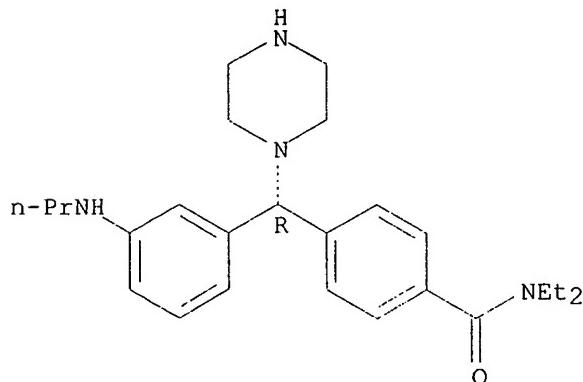
CRN 76-05-1
CMF C2 H F3 O2



RN 691878-18-9 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl[3-(propylamino)phenyl]methyl]-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

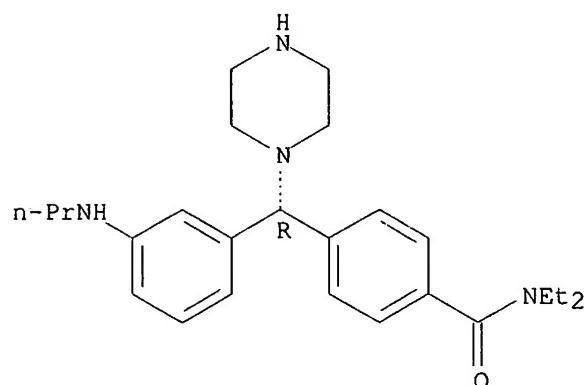


RN 691878-20-3 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl[3-(propylamino)phenyl]methyl]-, trifluoroacetate (5:18) (9CI) (CA INDEX NAME)

CM 1

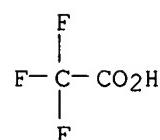
CRN 691878-18-9
 CMF C25 H36 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

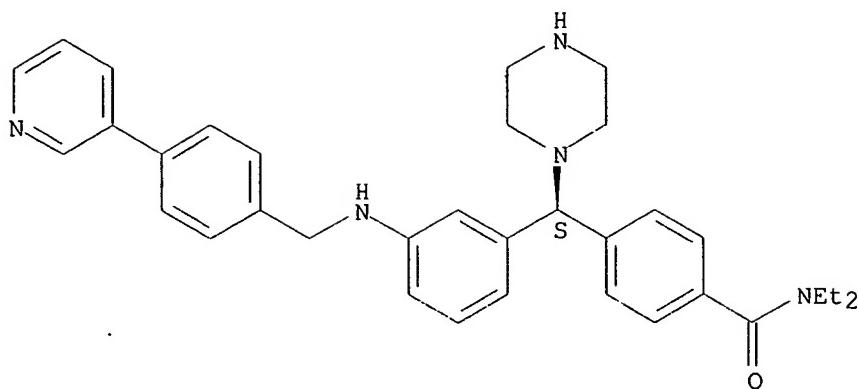


RN 691878-22-5 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-[[[4-(3-pyridinyl)phenyl]methyl]amino]phenyl]methyl]-, trifluoroacetate (10:33) (9CI) (CA INDEX NAME)

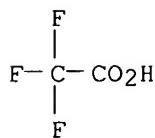
CM 1

CRN 691878-21-4
 CMF C34 H39 N5 O

Absolute stereochemistry. Rotation (+).



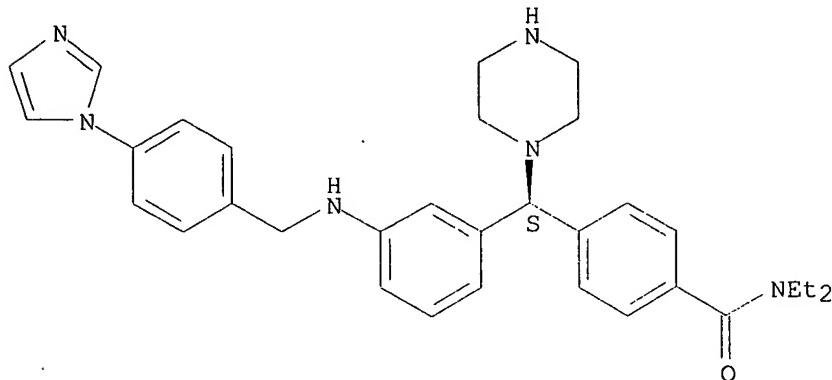
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-24-7 HCAPLUS
CN Benzamide, N,N-diethyl-4-[(S)-[3-[4-(1H-imidazol-1-yl)phenyl]methyl]amino]phenyl]-1-piperazinylmethyl-, tris(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

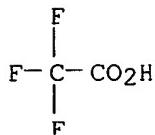
CRN 691878-23-6
CMF C32 H38 N6 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

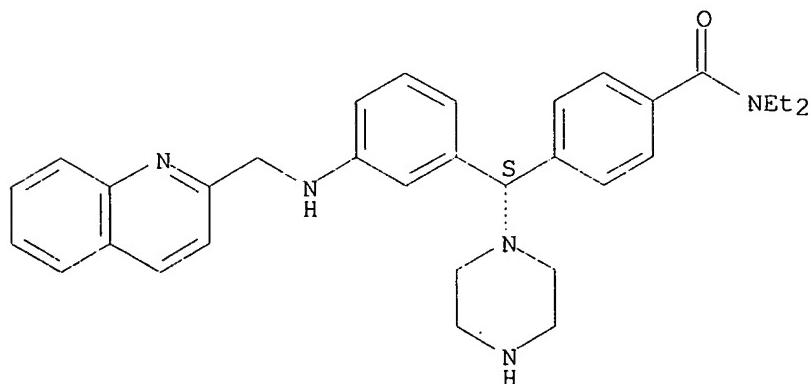


RN 691878-26-9 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-[(2-quinolinylmethyl)amino]phenyl]methyl]-, trifluoroacetate (5:18) (9CI) (CA INDEX NAME)

CM 1

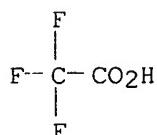
CRN 691878-25-8
 CMF C32 H37 N5 O

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

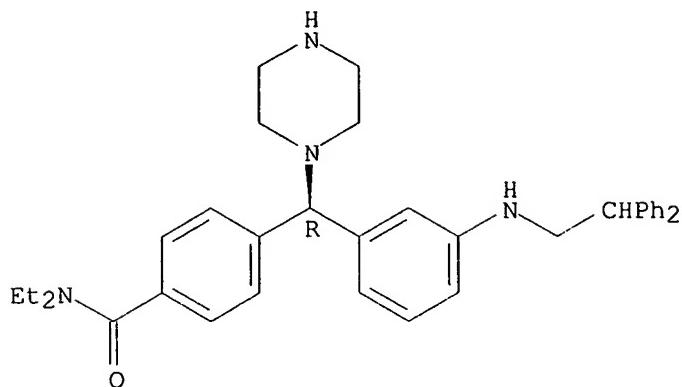


RN 691878-28-1 HCPLUS
 CN Benzamide, 4-[(R)-[3-[(2,2-diphenylethyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (5:14) (9CI) (CA INDEX NAME)

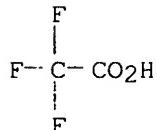
CM 1

CRN 691878-27-0
CMF C36 H42 N4 O

Absolute stereochemistry. Rotation (+).



CM 2

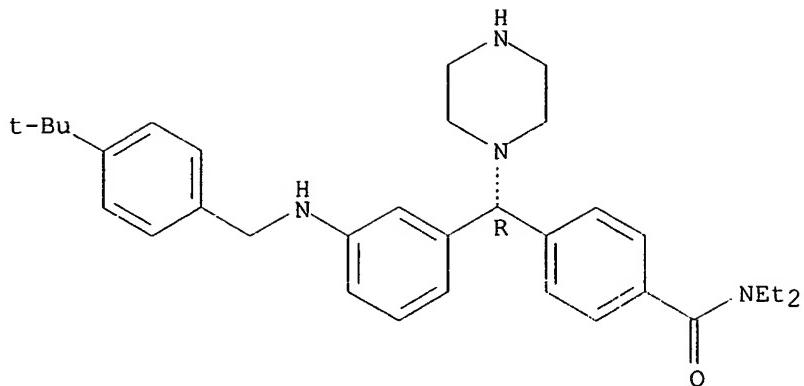
CRN 76-05-1
CMF C2 H F3 O2

RN 691878-30-5 HCAPLUS
 CN Benzamide, 4-[{(R)-[3-[[4-(1,1-dimethylethyl)phenyl]methyl]amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (5:21) (9CI) (CA INDEX NAME)

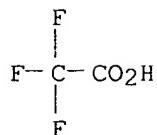
CM 1

CRN 691878-29-2
CMF C33 H44 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

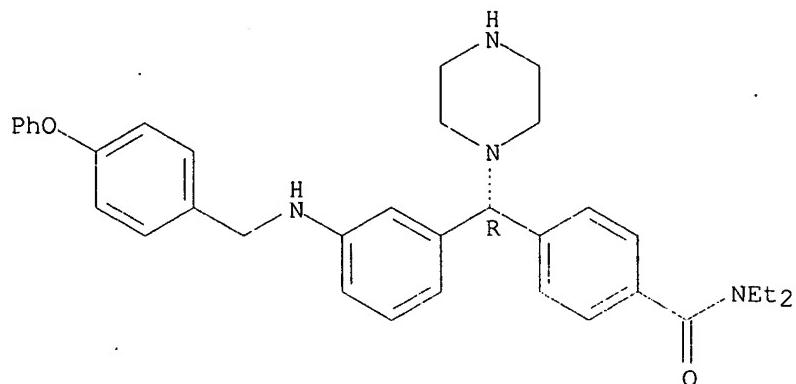
CRN 76-05-1
CMF C2 H F3 O2

RN 691878-32-7 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-[3-[[4-phenoxyphenyl]methyl]amino]phenyl]-1-piperazinylmethyl-, trifluoroacetate (10:23) (9CI) (CA INDEX NAME)

CM 1

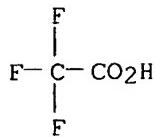
CRN 691878-31-6
CMF C35 H40 N4 O2

Absolute stereochemistry. Rotation (-).



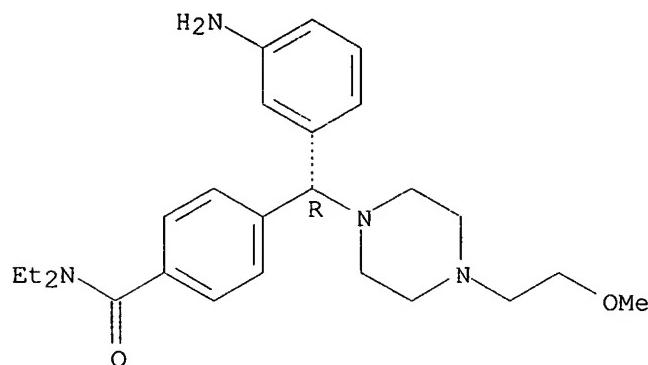
CM 2

CRN 76-05-1
 CMF C2 H F3 O2



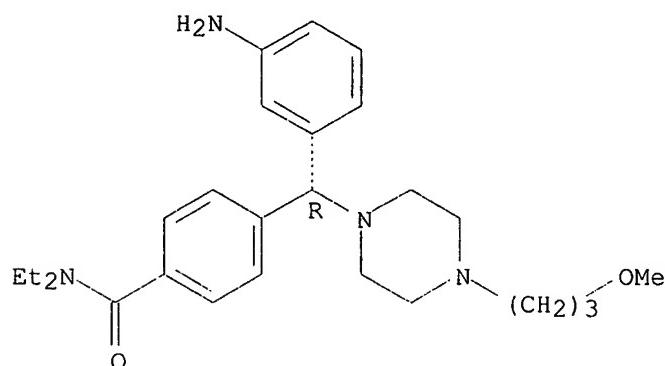
RN 691878-34-9 HCPLUS
 CN Benzamide, 4-[(R)-(3-aminophenyl)[4-(2-methoxyethyl)-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 691878-35-0 HCPLUS
 CN Benzamide, 4-[(R)-(3-aminophenyl)[4-(3-methoxypropyl)-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

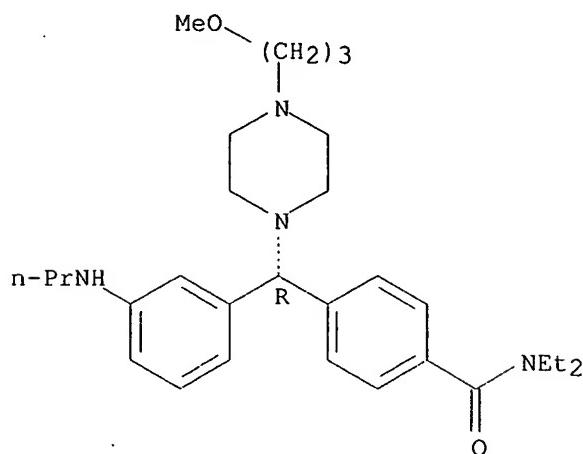


RN 691878-38-3 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-[4-(3-methoxypropyl)-1-piperazinyl][3-(propylamino)phenyl]methyl]-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

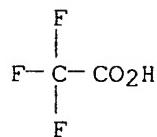
CRN 691878-37-2
 CMF C29 H44 N4 O2

Absolute stereochemistry. Rotation (-).



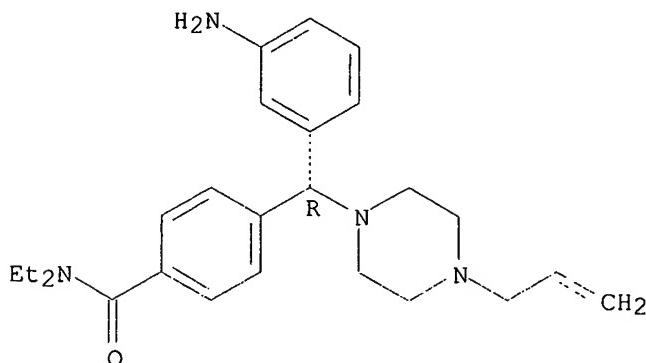
CM 2

CRN 76-05-1
 CMF C2 H F3 O2



RN 691878-42-9 HCPLUS
 CN Benzamide, 4-[(R)-(3-aminophenyl)[4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

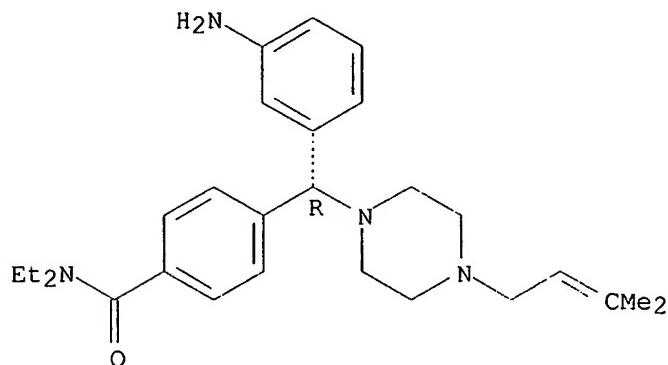
Absolute stereochemistry. Rotation (+).



RN 691878-44-1 HCPLUS
 CN Benzamide, 4-[(R)-(3-aminophenyl)[4-(3-methyl-2-butenyl)-1-

piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

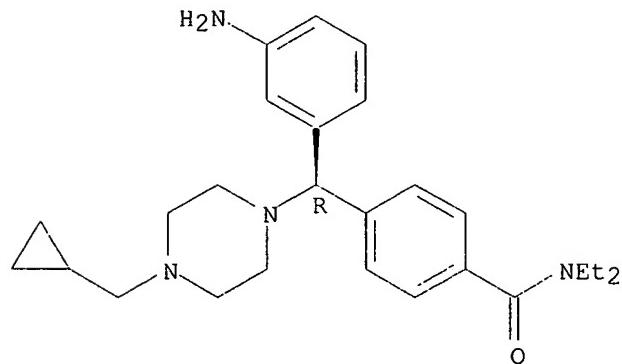
Absolute stereochemistry. Rotation (+).



RN 691878-45-2 HCAPLUS

CN Benzamide, 4-[(R)-(3-aminophenyl)[4-(cyclopropylmethyl)-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 691878-61-2 HCAPLUS

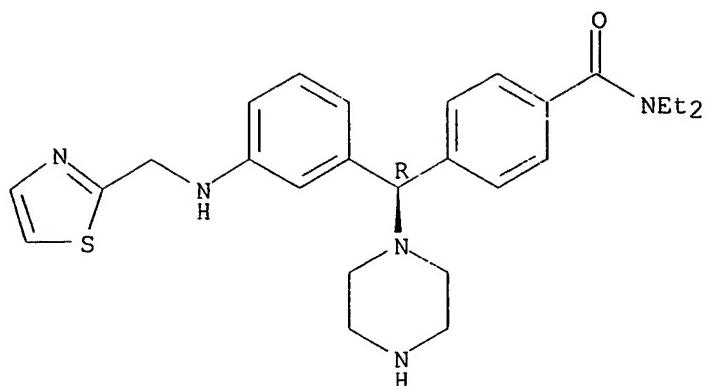
CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl[3-[(2-thiazolylmethyl)amino]phenyl]methyl]-, trifluoroacetate (5:12) (9CI) (CA INDEX NAME)

CM 1

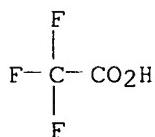
CRN 691877-69-7

CMF C26 H33 N5 O S

Absolute stereochemistry. Rotation (-).



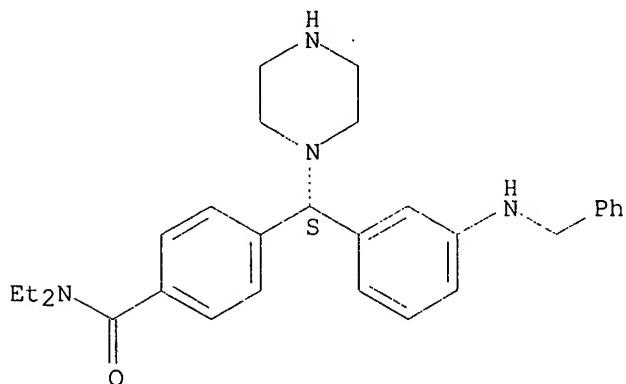
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-62-3 HCPLUS
CN Benzamide, N,N-diethyl-4-[(S)-[3-[(phenylmethyl)amino]phenyl]-1-piperazinylmethyl]-, trifluoroacetate (5:13) (9CI) (CA INDEX NAME)

CM 1

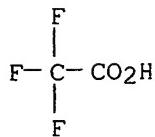
CRN 691877-70-0
CMF C29 H36 N4 O

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

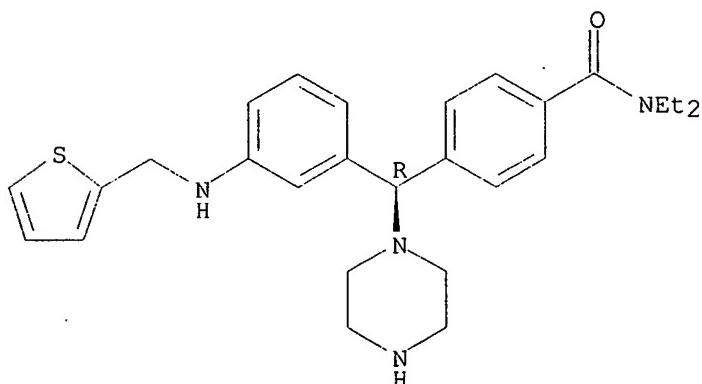


RN 691878-63-4 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl[3-[(2-thienylmethyl)amino]phenyl]methyl]-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

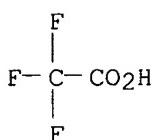
CRN 691877-71-1
 CMF C27 H34 N4 O S

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

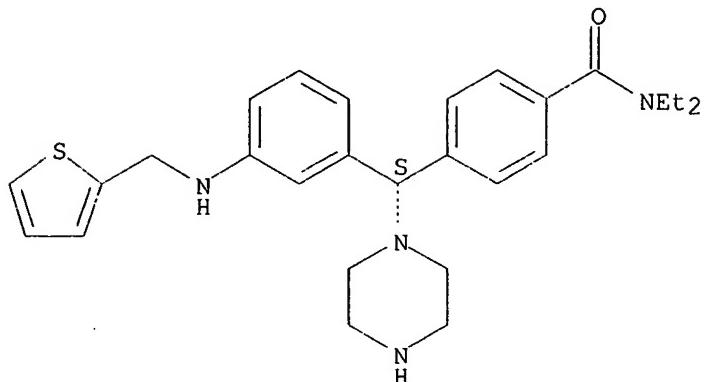


RN 691878-64-5 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-[(2-thienylmethyl)amino]phenyl]methyl]-, tris(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

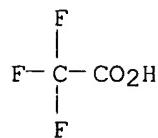
CRN 691877-72-2
 CMF C27 H34 N4 O S

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

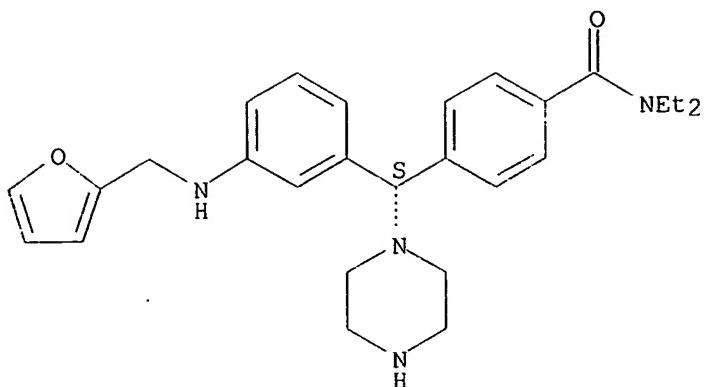


RN 691878-65-6 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-[3-[(2-furanyl)methyl]amino]phenyl]-1-piperazinylmethyl-, trifluoroacetate (2:5) (9CI) (CA INDEX NAME)

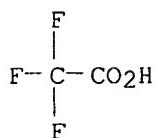
CM 1

CRN 691877-73-3
 CMF C27 H34 N4 O2

Absolute stereochemistry. Rotation (+).



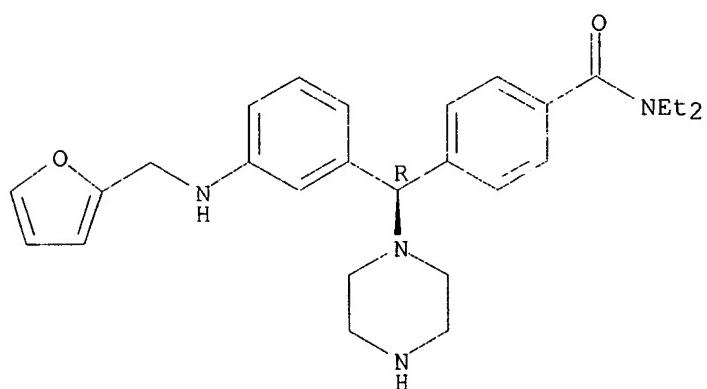
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-66-7 HCAPLUS.
CN Benzamide, N,N-diethyl-4-[(R)-[3-[(2-furanyl methyl) amino]phenyl]-1-piperazinylmethyl]-, tris(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

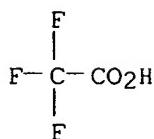
CRN 691877-75-5
CMF C27 H34 N4 O2

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

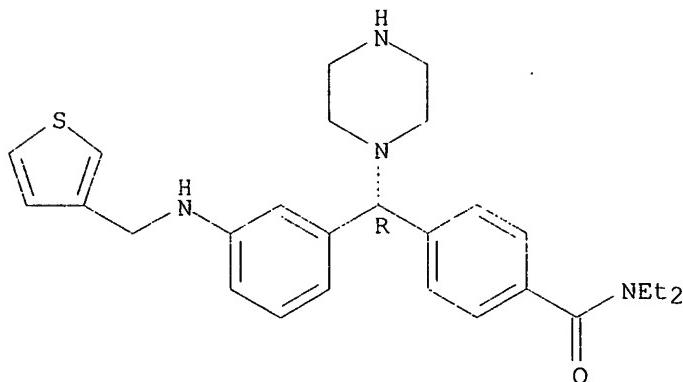


RN 691878-67-8 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl[3-[(3-thienylmethyl)amino]phenyl]methyl]-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

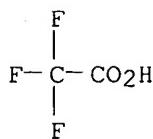
CRN 691877-76-6
 CMF C27 H34 N4 O S

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

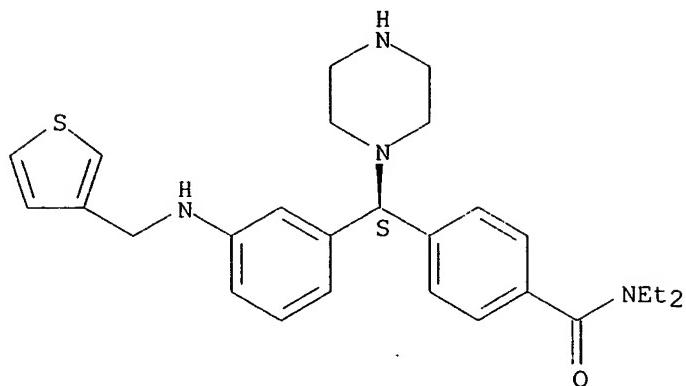


RN 691878-68-9 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-[(3-thienylmethyl)amino]phenyl]methyl]-, trifluoroacetate (5:14) (9CI) (CA INDEX NAME)

CM 1

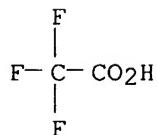
CRN 691877-77-7
 CMF C27 H34 N4 O S

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

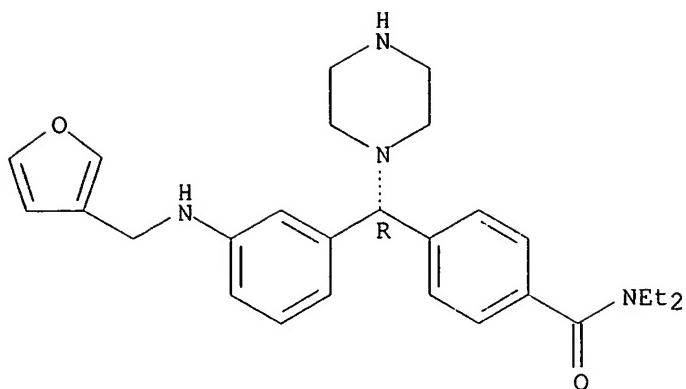


RN 691878-69-0 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-[3-[(3-furanyl methyl)amino]phenyl]-1-piperazinylmethyl]-, trifluoroacetate (5:9) (9CI) (CA INDEX NAME)

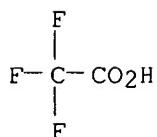
CM 1

CRN 691877-78-8
 CMF C27 H34 N4 O2

Absolute stereochemistry. Rotation (-).



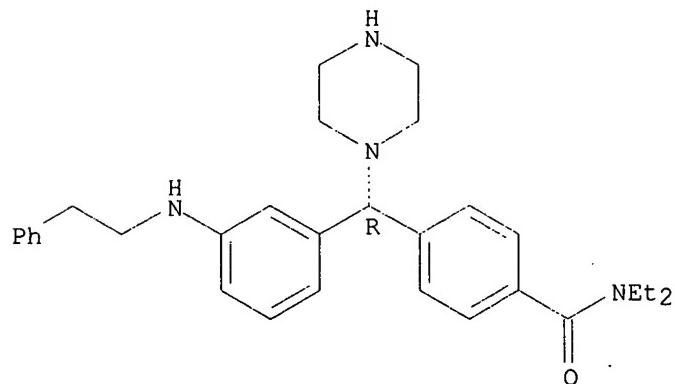
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-70-3 HCPLUS
CN Benzamide, N,N-diethyl-4-[(R)-[3-[(2-phenylethyl)amino]phenyl]-1-piperazinylmethyl]-, trifluoroacetate (10:19) (9CI) (CA INDEX NAME)

CM 1

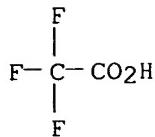
CRN 691877-79-9
CMF C30 H38 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

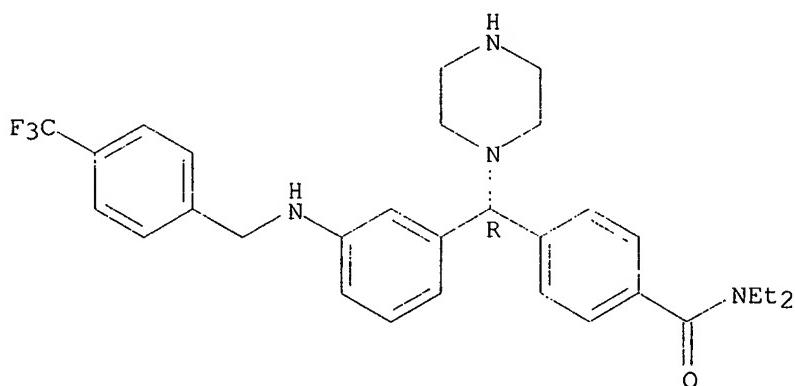


RN 691878-71-4 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl[3-[[[4-(trifluoromethyl)phenyl]methyl]amino]phenyl]methyl]-, trifluoroacetate (5:7) (9CI) (CA INDEX NAME)

CM 1

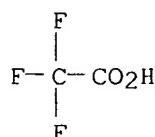
CRN 691877-81-3
 CMF C30 H35 F3 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

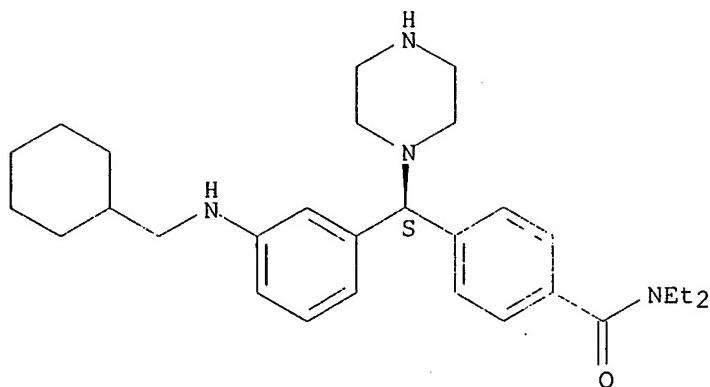


RN 691878-72-5 HCAPLUS
 CN Benzamide, 4-[(S)-[3-[(cyclohexylmethyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (5:14) (9CI) (CA INDEX NAME)

CM 1

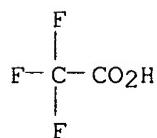
CRN 691877-83-5
 CMF C29 H42 N4 O

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

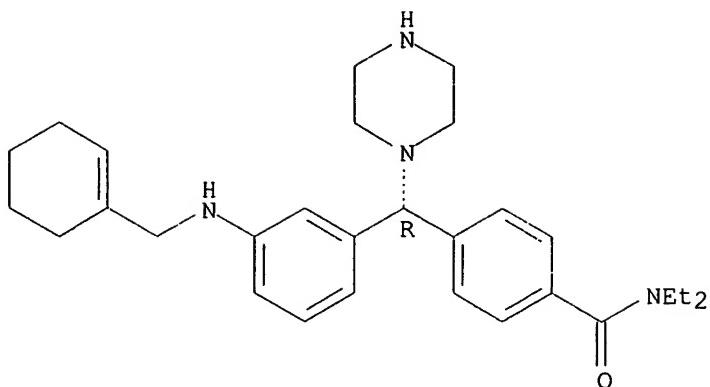


RN 691878-73-6 HCAPLUS
 CN Benzamide, 4-[(R)-[3-[(1-cyclohexen-1-ylmethyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (10:29) (9CI) (CA INDEX NAME)

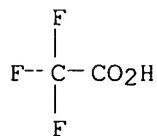
CM 1

CRN 691877-85-7
 CMF C29 H40 N4 O

Absolute stereochemistry. Rotation (-).



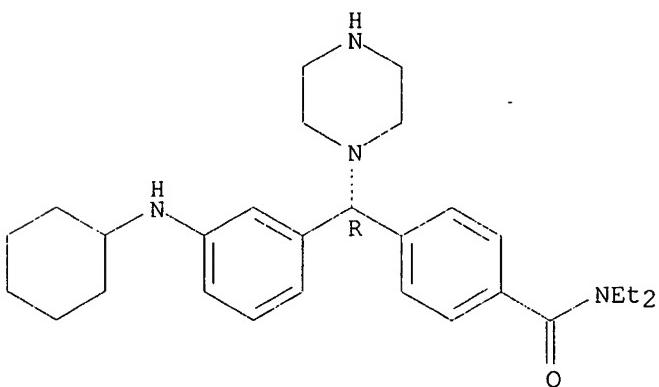
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-75-8 HCAPLUS
CN Benzamide, 4-[(R)-[3-(cyclohexylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (10:23) (9CI) (CA INDEX NAME)

CM 1

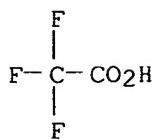
CRN 691878-74-7
CMF C28 H40 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

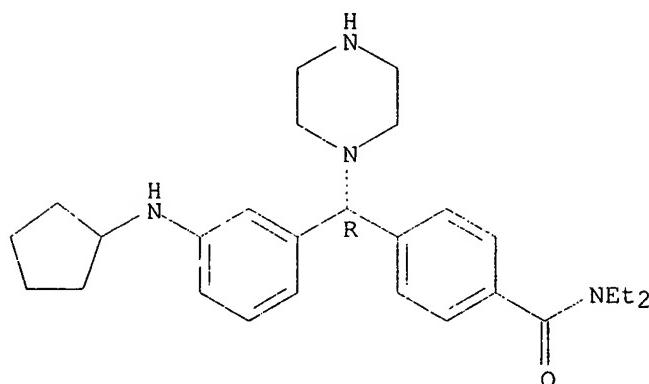


RN 691878-76-9 HCAPLUS
 CN Benzamide, 4-[(R)-[3-(cyclopentylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (5:13) (9CI) (CA INDEX NAME)

CM 1

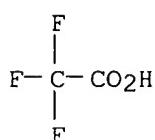
CRN 691877-89-1
 CMF C27 H38 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2



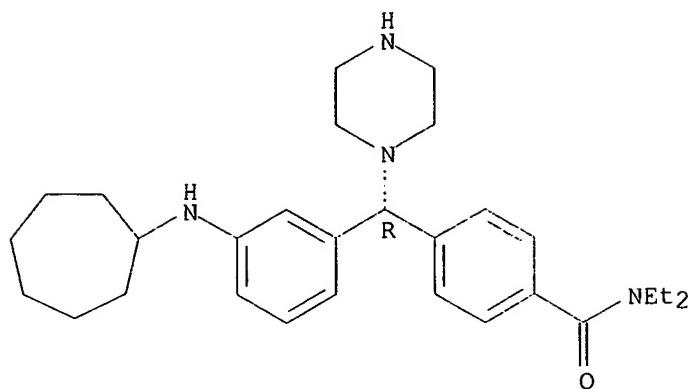
RN 691878-77-0 HCAPLUS
 CN Benzamide, 4-[(R)-[3-(cycloheptylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (2:5) (9CI) (CA INDEX NAME)

CM 1

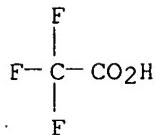
CRN 691877-90-4

CMF C29 H42 N4 O

Absolute stereochemistry. Rotation (-).



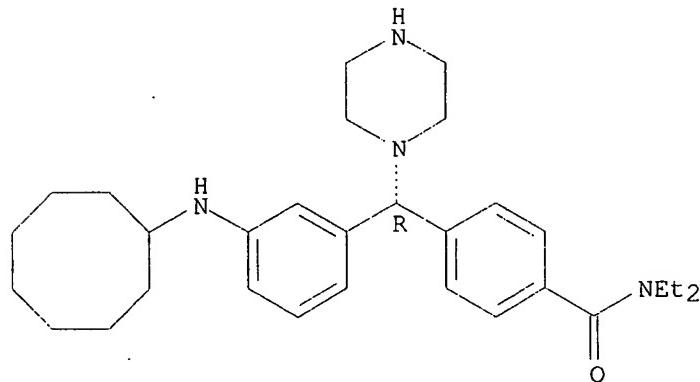
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-78-1 HCAPLUS
CN Benzamide, 4-[(R)-[3-(cyclooctylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (5:13) (9CI) (CA INDEX NAME)

CM 1

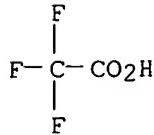
CRN 691877-91-5
CMF C30 H44 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

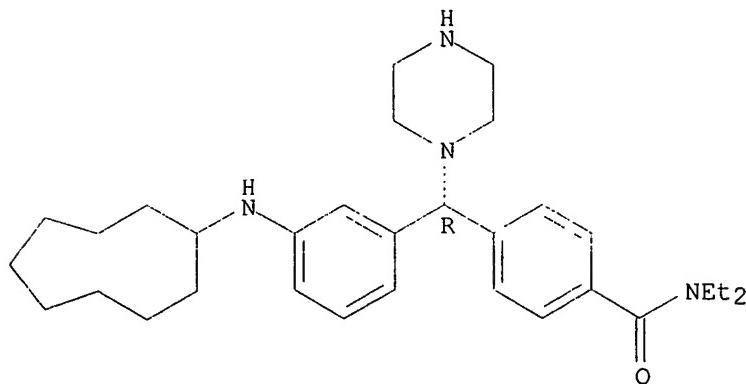


RN 691878-79-2 HCAPLUS
 CN Benzamide, 4-[(R)-[3-(cyclononylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (5:13) (9CI) (CA INDEX NAME)

CM 1

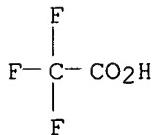
CRN 691877-92-6
 CMF C31 H46 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

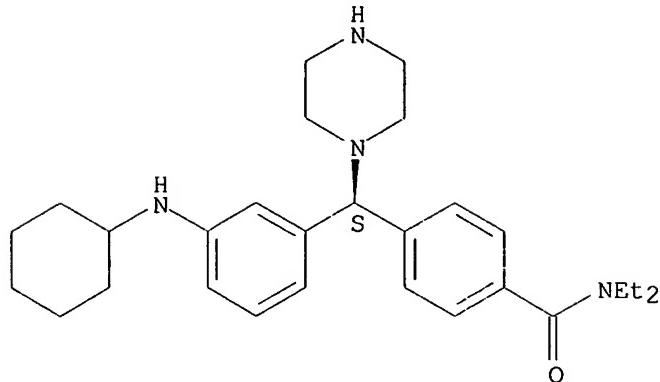


RN 691878-80-5 HCAPLUS
 CN Benzamide, 4-[(S)-[3-(cyclohexylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (2:5) (9CI) (CA INDEX NAME)

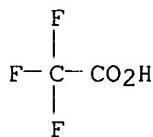
CM 1

CRN 691877-93-7
CMF C28 H40 N4 O

Absolute stereochemistry. Rotation (+).



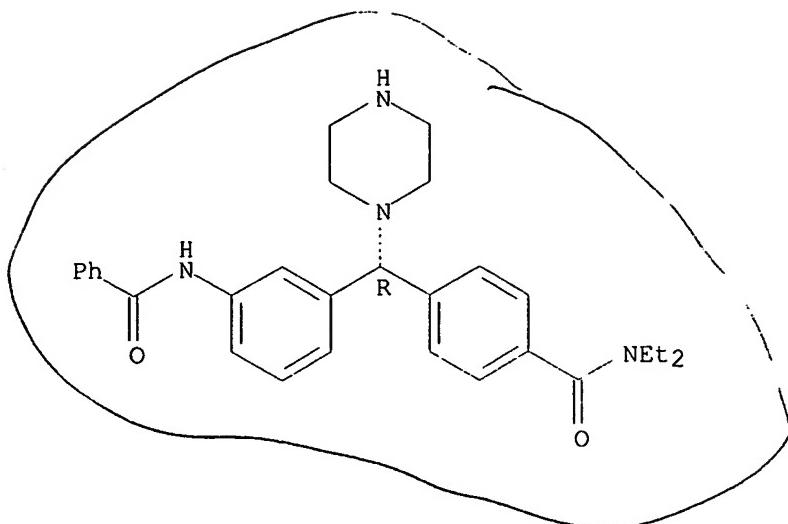
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-81-6 HCPLUS
CN Benzamide, 4-[(R)-[3-(benzoylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (5:8) (9CI) (CA INDEX NAME)

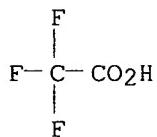
CM 1

CRN 691877-99-3
CMF C29 H34 N4 O2

Absolute stereochemistry. Rotation (-).



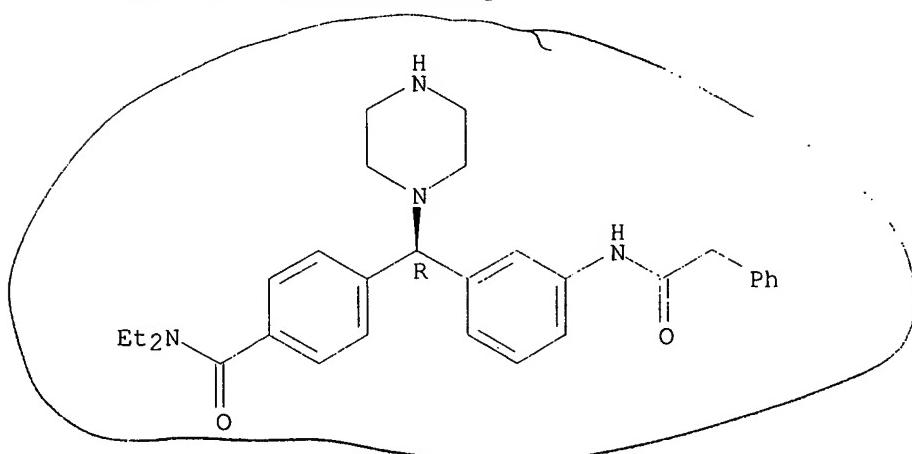
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-82-7 HCAPLUS
CN Benzeneacetamide, N-[3-[(R)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-, trifluoroacetate (10:9) (9CI) (CA INDEX NAME)

CM 1

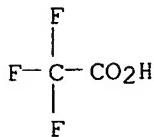
CRN 691878-00-9
CMF C30 H36 N4 O2

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

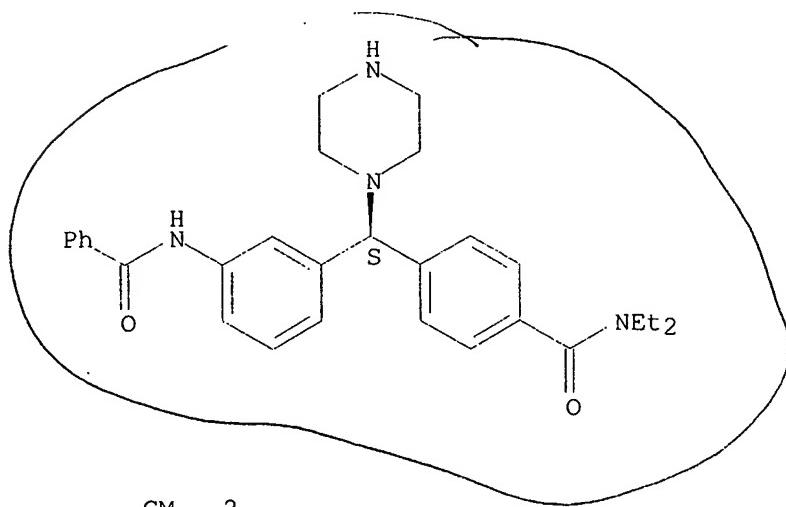


RN 691878-83-8 HCPLUS
 CN Benzamide, 4-[(S)-[3-(benzoylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (10:19) (9CI) (CA INDEX NAME)

CM 1

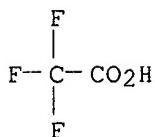
CRN 691878-01-0
 CMF C29 H34 N4 O2

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2



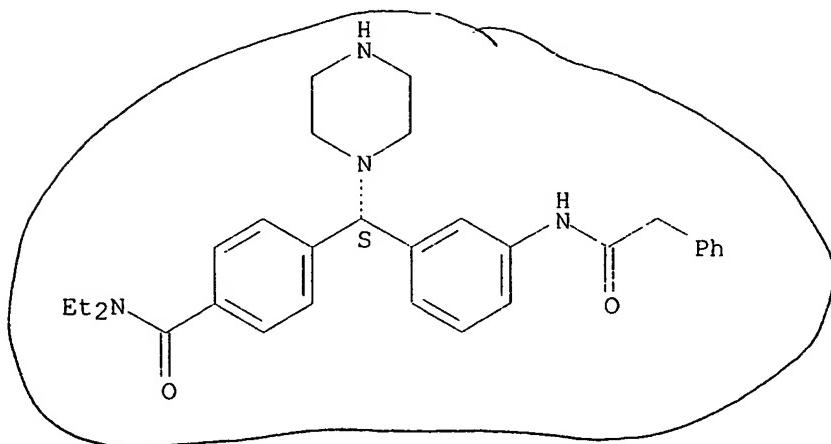
RN 691878-84-9 HCPLUS
 CN Benzeneacetamide, N-[3-[(S)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-, trifluoroacetate (5:9) (9CI) (CA INDEX NAME)

CM 1

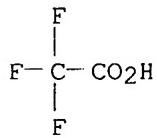
CRN 691878-02-1

CMF C30 H36 N4 O2

Absolute stereochemistry. Rotation (+).



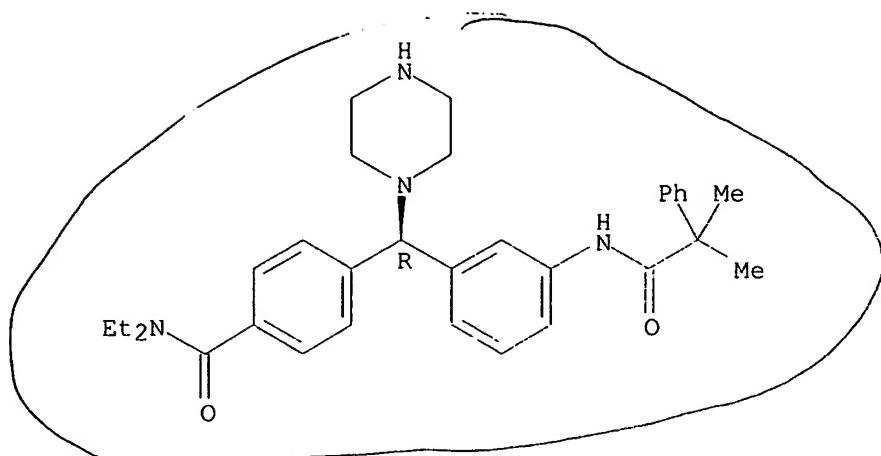
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-85-0 HCPLUS
CN Benzeneacetamide, N-[3-[(R)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-α,α-dimethyl-, trifluoroacetate (2:3) (9CI) (CA INDEX NAME)

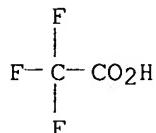
CM 1

CRN 691878-03-2
CMF C32 H40 N4 O2

Absolute stereochemistry. Rotation (-).



CM 2

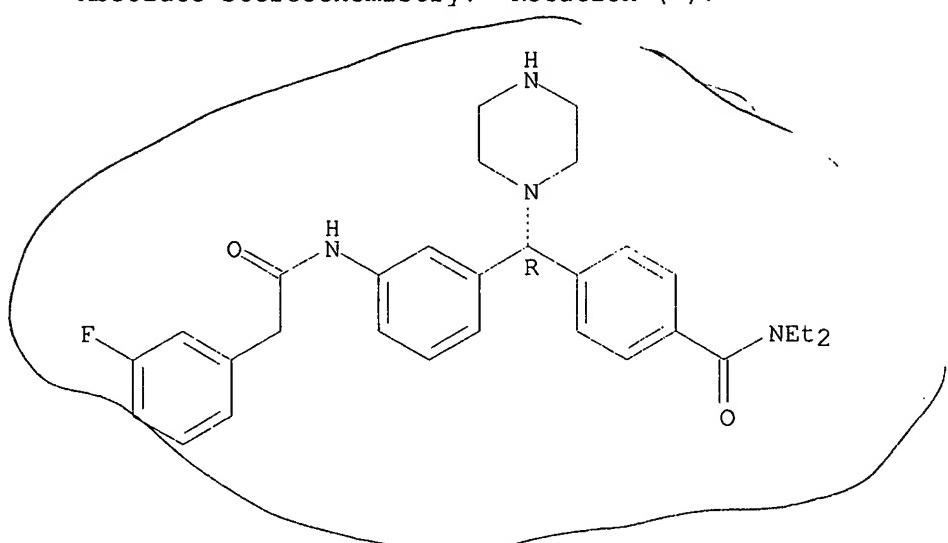
CRN 76-05-1
CMF C2 H F3 O2

RN 691878-86-1 HCAPLUS
 CN Benzeneacetamide, N-[3-[(R)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-3-fluoro-, trifluoroacetate (5:7) (9CI) (CA INDEX NAME)

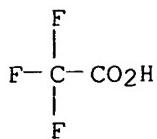
CM 1

CRN 691878-04-3
CMF C30 H35 F N4 O2

Absolute stereochemistry. Rotation (-).



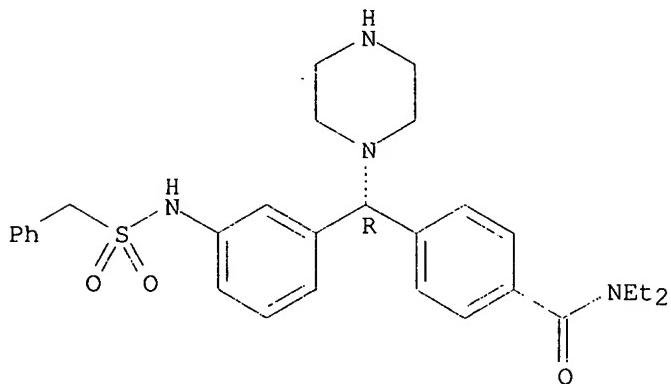
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-87-2 HCPLUS
CN Benzamide, N,N-diethyl-4-[(R)-[3-[[phenylmethyl]sulfonyl]amino]phenyl]-1-piperazinylmethyl-, trifluoroacetate (5:3) (9CI) (CA INDEX NAME)

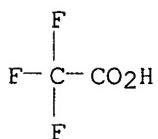
CM 1

CRN 691878-11-2
CMF C29 H36 N4 O3 S

Absolute stereochemistry. Rotation (-).



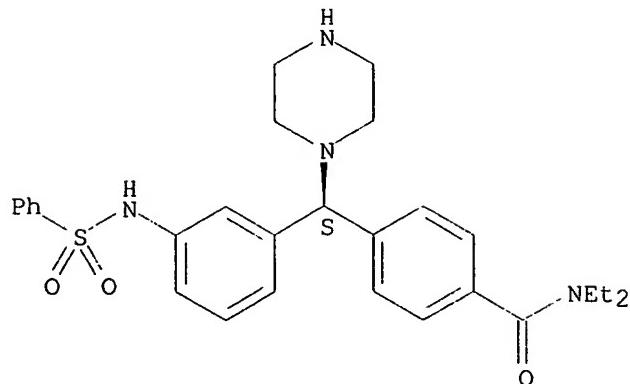
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-89-4 HCPLUS
CN Benzamide, N,N-diethyl-4-[(S)-[3-[(phenylsulfonyl)amino]phenyl]-1-piperazinylmethyl-, trifluoroacetate (10:19) (9CI) (CA INDEX NAME)

CM 1

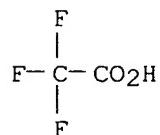
CRN 691878-88-3
 CMF C28 H34 N4 O3 S

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

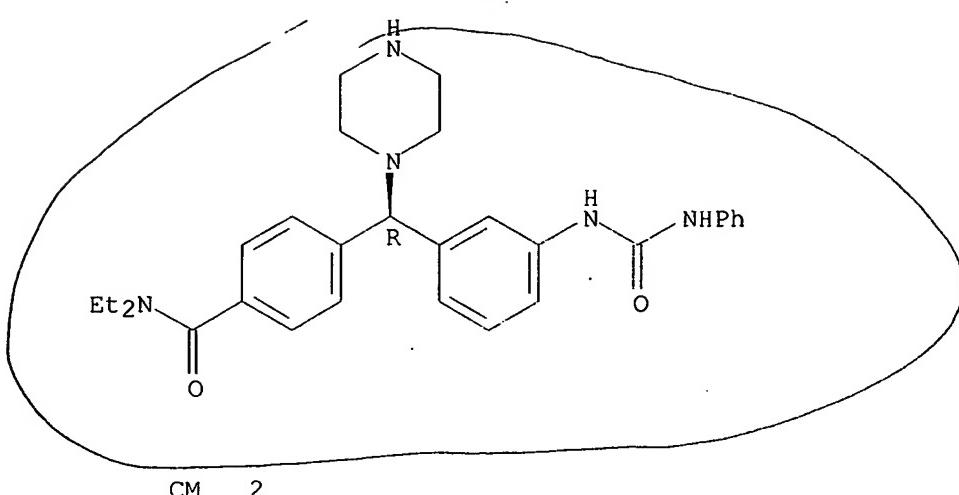


RN 691878-90-7 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-[3-[(phenylamino)carbonyl]amino]phenyl]-1-piperazinylmethyl-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

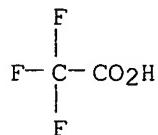
CM 1

CRN 691878-12-3
 CMF C29 H35 N5 O2

Absolute stereochemistry. Rotation (-).



CRN 76-05-1
 CMF C2 H F3 O2

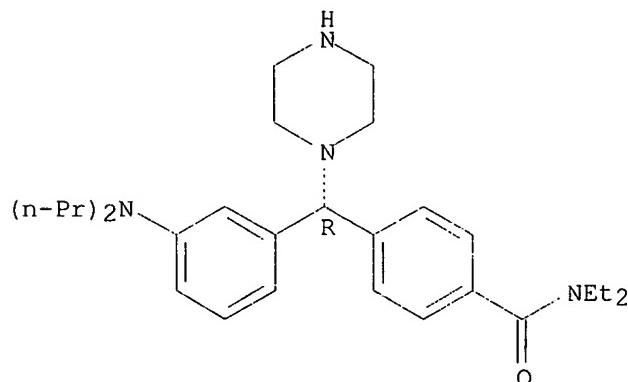


RN 691878-91-8 HCAPLUS
 CN Benzamide, 4-[(R)-[3-(dipropylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (5:21) (9CI) (CA INDEX NAME)

CM 1

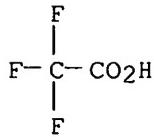
CRN 691878-19-0
 CMF C28 H42 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

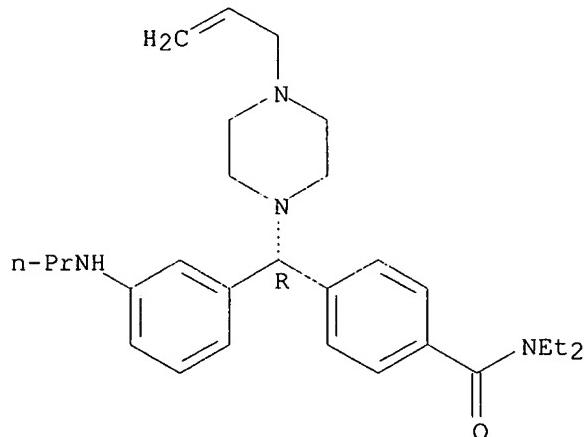


RN 691878-92-9 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-[4-(2-propenyl)-1-piperazinyl][3-(propylamino)phenyl]methyl]-, trifluoroacetate (10:27) (9CI) (CA INDEX NAME)

CM 1

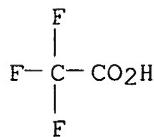
CRN 691878-33-8
 CMF C28 H40 N4 O

Absolute stereochemistry. Rotation (-).



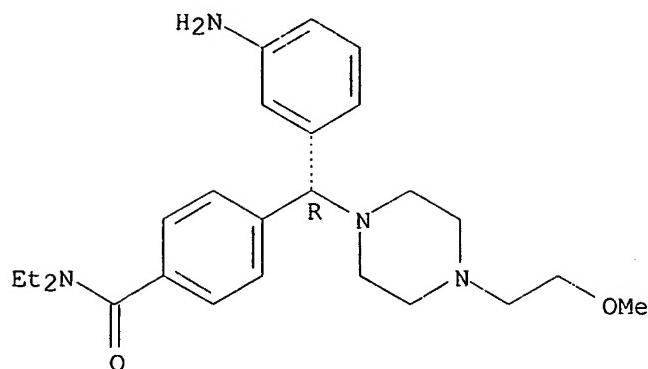
CM 2

CRN 76-05-1
 CMF C2 H F3 O2



RN 691878-93-0 HCPLUS
 CN Benzamide, 4-[(R)-(3-aminophenyl)[4-(2-methoxyethyl)-1-piperazinyl]methyl]-, N,N-diethyl-, hydrochloride (5:16) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

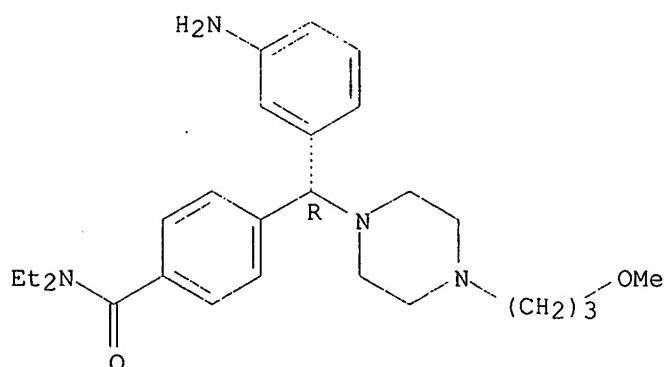


● 16/5 HCl

RN 691878-94-1 HCAPLUS

CN Benzamide, 4-[{(R)-(3-aminophenyl)[4-(3-methoxypropyl)-1-piperazinyl]methyl]-N,N-diethyl-, tetrahydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● 4 HCl

RN 691878-95-2 HCAPLUS

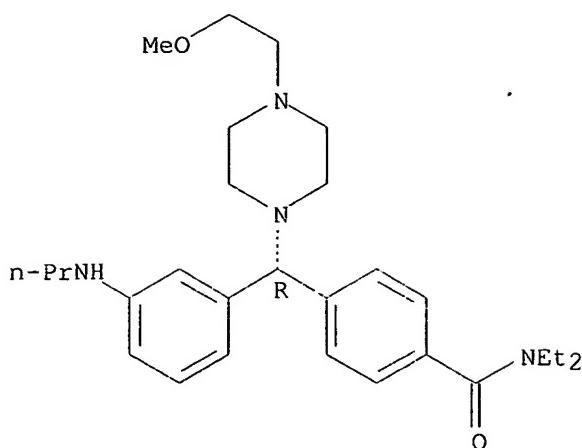
CN Benzamide, N,N-diethyl-4-[(R)-[4-(2-methoxyethyl)-1-piperazinyl][3-(propylamino)phenyl]methyl]-, trifluoroacetate (5:13) (9CI) (CA INDEX NAME)

CM 1

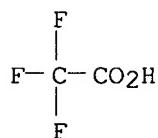
CRN 691878-36-1

CMF C28 H42 N4 O2

Absolute stereochemistry. Rotation (-).



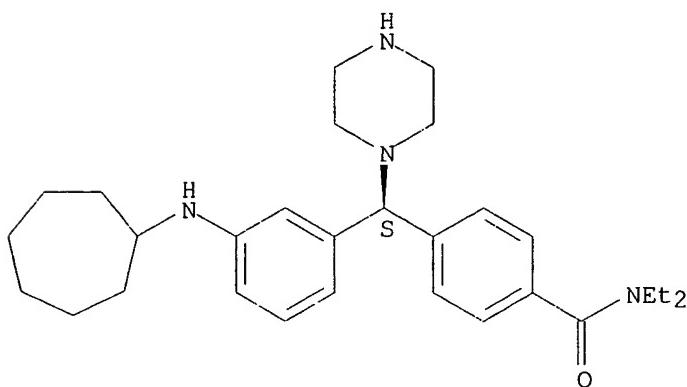
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-96-3 HCPLUS
CN Benzamide, 4-[(S)-[3-(cycloheptylaminophenyl)methyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (10:29) (9CI) (CA INDEX NAME)

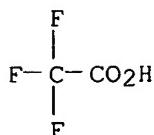
CM 1

CRN 691878-39-4
CMF C29 H42 N4 O

Absolute stereochemistry. Rotation (+).



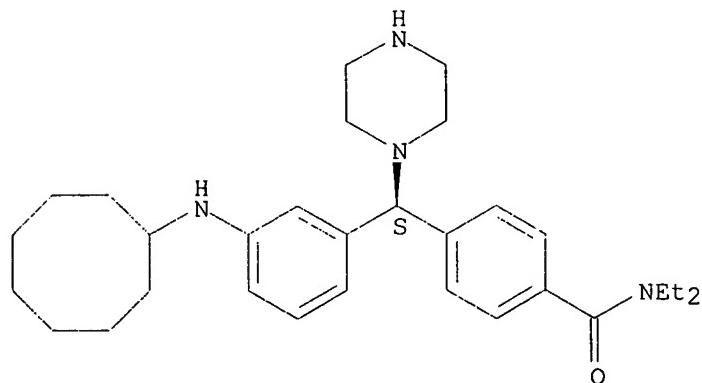
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-97-4 HCPLUS
CN Benzamide, 4-[(S)-[3-(cyclooctylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (5:14) (9CI) (CA INDEX NAME)

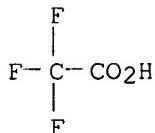
CM 1

CRN 691878-40-7
CMF C30 H44 N4 O

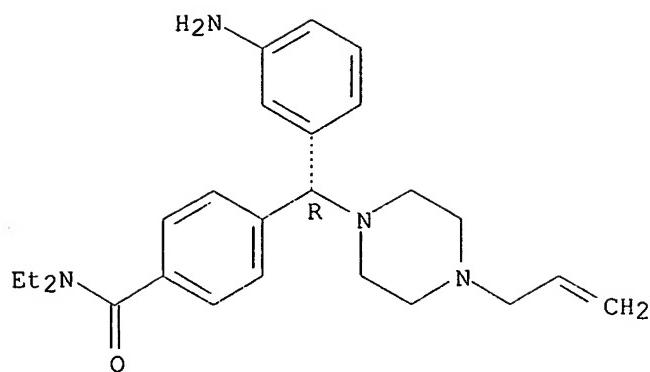
Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-98-5 HCPLUS
CN Benzamide, 4-[(R)-(3-aminophenyl)[4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, trihydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

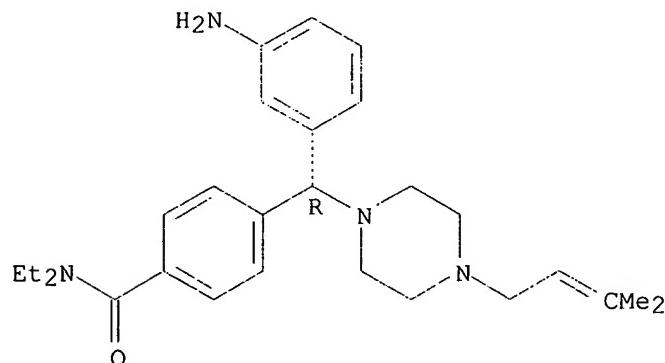


● 3 HCl

RN 691878-99-6 HCPLUS

CN Benzamide, 4-[(R)-(3-aminophenyl)[4-(3-methyl-2-butenyl)-1-piperazinyl]methyl]-N,N-diethyl-, hydrochloride (5:19) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



● 19/5 HCl

RN 691879-00-2 HCPLUS

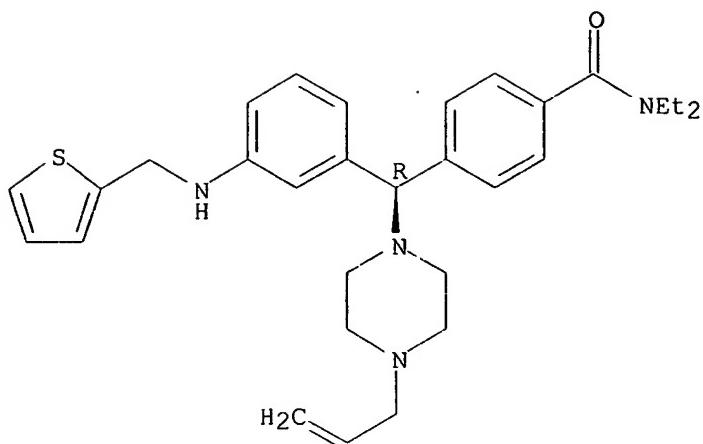
CN Benzamide, N,N-diethyl-4-[(R)-[4-(2-propenyl)-1-piperazinyl][3-[(2-thienylmethyl)amino]phenyl]methyl]-, trifluoroacetate (10:23) (9CI) (CA INDEX NAME)

CM 1

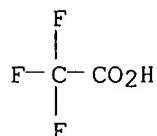
CRN 691878-46-3

CMF C30 H38 N4 O S

Absolute stereochemistry. Rotation (-).



CM 2

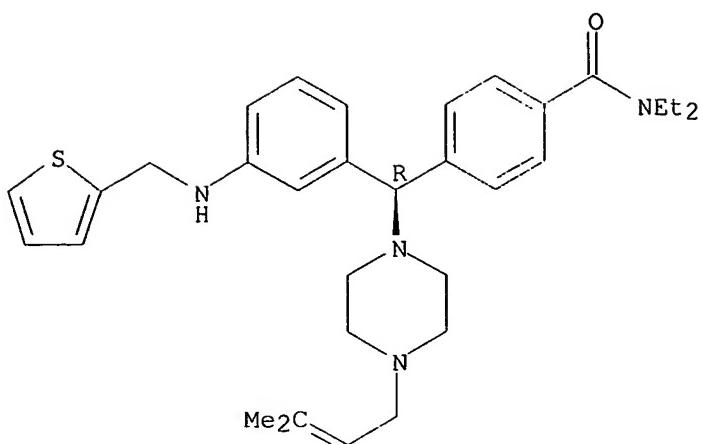
CRN 76-05-1
CMF C2 H F3 O2

RN 691879-01-3 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-[4-(3-methyl-2-butenyl)-1-piperazinyl][3-[(2-thienylmethyl)amino]phenyl]methyl]-, trifluoroacetate (5:7) (9CI) (CA INDEX NAME)

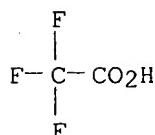
CM 1

CRN 691878-47-4
CMF C32 H42 N4 O S

Absolute stereochemistry. Rotation (-).



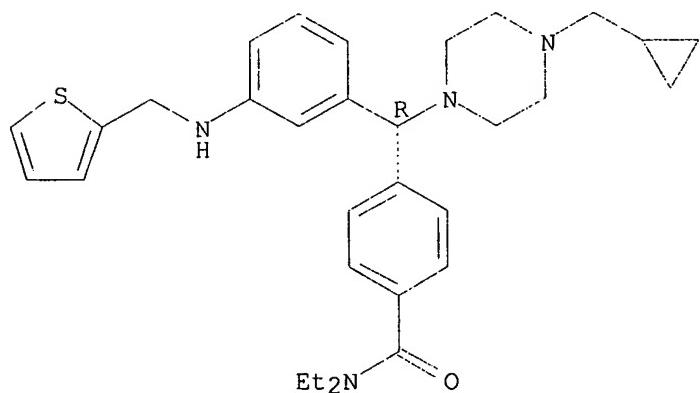
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691879-02-4 HCAPLUS
CN Benzamide, 4-[(R)-[4-(cyclopropylmethyl)-1-piperazinyl][3-[(2-thienylmethyl)amino]phenyl]methyl]-, N,N-diethyl-, trifluoroacetate (5:12) (9CI) (CA INDEX NAME)

CM 1

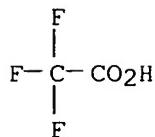
CRN 691878-48-5
CMF C31 H40 N4 O S

Absolute stereochemistry. Rotation (-).



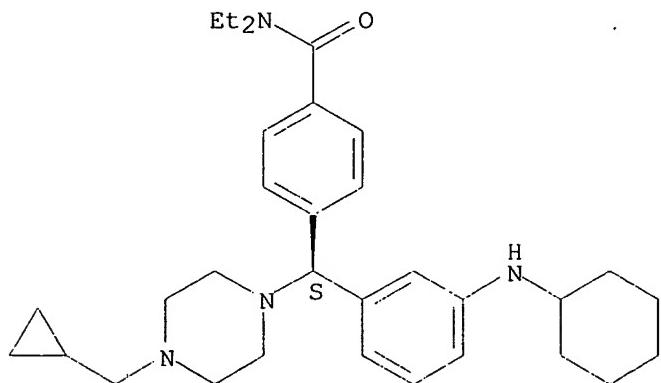
CM 2

CRN 76-05-1
 CMF C2 H F3 O2



RN 691879-03-5 HCPLUS
 CN Benzamide, 4-[{(S)-[3-(cyclohexylamino)phenyl][4-(cyclopropylmethyl)-1-piperazinyl]methyl}-N,N-diethyl-, hydrochloride (5:16) (9CI) (CA INDEX NAME)

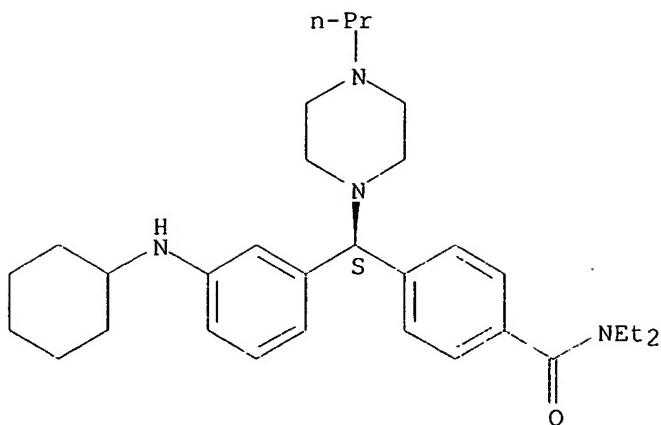
Absolute stereochemistry. Rotation (+).



●16/5 HCl

RN 691879-04-6 HCPLUS
 CN Benzamide, 4-[{(S)-[3-(cyclohexylamino)phenyl](4-propyl-1-piperazinyl)methyl}-N,N-diethyl-, hydrochloride (10:43) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

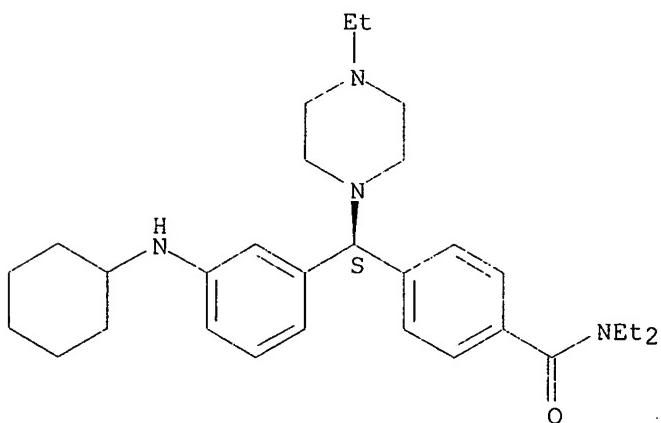


● 43/10 HCl

RN 691879-05-7 HCPLUS

CN Benzamide, 4-[(S)-[3-(cyclohexylamino)phenyl](4-ethyl-1-piperazinyl)methyl]-N,N-diethyl-, pentahydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

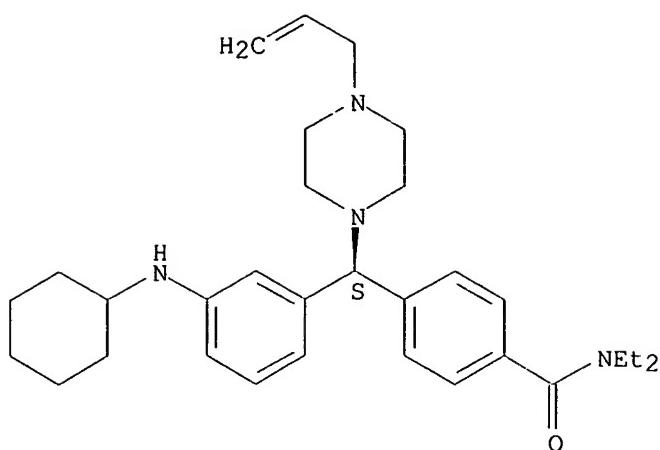


● 5 HCl

RN 691879-06-8 HCPLUS

CN Benzamide, 4-[(S)-[3-(cyclohexylamino)phenyl][4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, hydrochloride (5:22) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

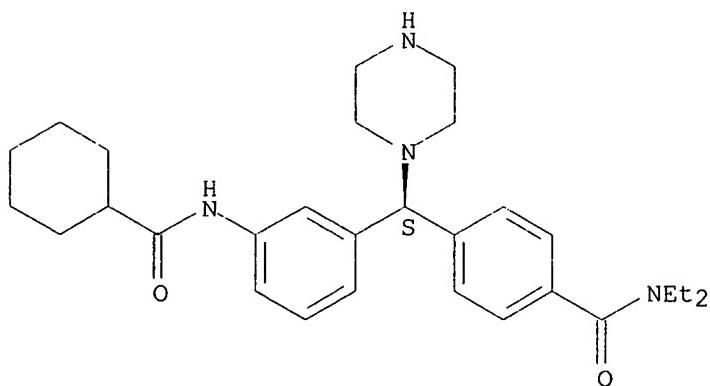


●22/5 HCl

RN 691879-07-9 HCPLUS

CN Benzamide, 4-[(S)-[3-[(cyclohexylcarbonyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl-, tetrahydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

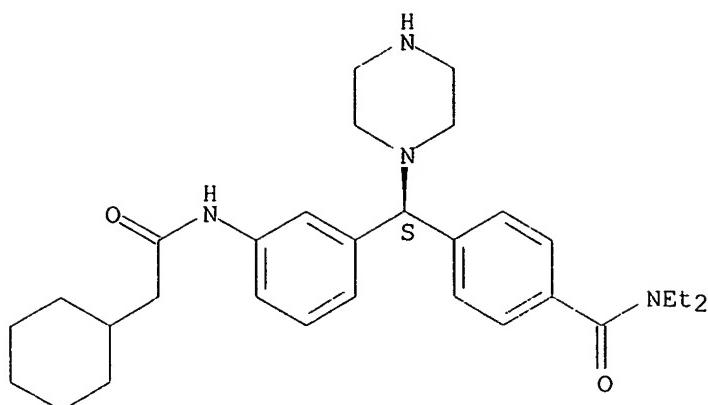


●4 HCl

RN 691879-08-0 HCPLUS

CN Benzamide, 4-[(S)-[3-[(cyclohexylacetyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl-, hydrochloride (5:2) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

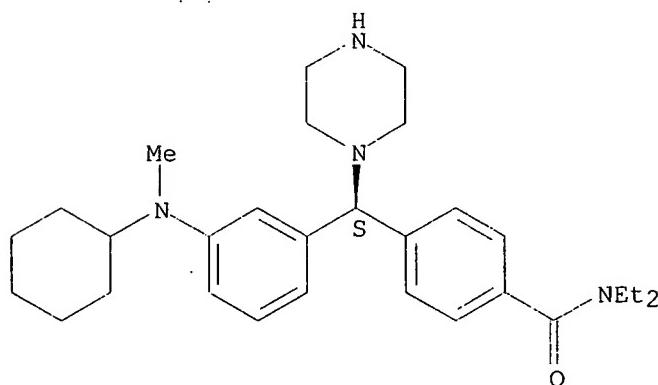


● 2/5 HCl

RN 691879-09-1 HCPLUS

CN Benzamide, 4-[(R)-[3-(cyclohexylmethylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, hydrochloride (10:41) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

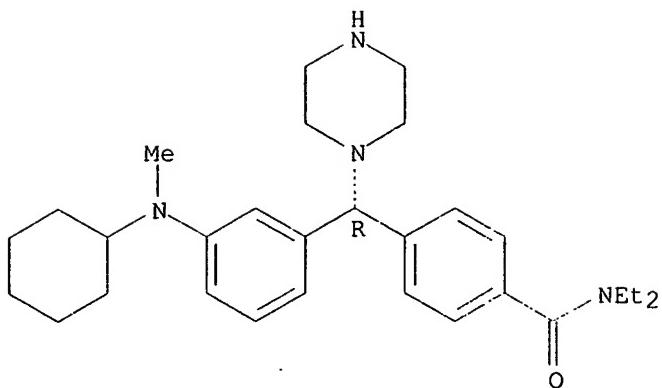


● 41/10 HCl

RN 691879-10-4 HCPLUS

CN Benzamide, 4-[(R)-[3-(cyclohexylmethylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, hydrochloride (5:24) (9CI) (CA INDEX NAME)

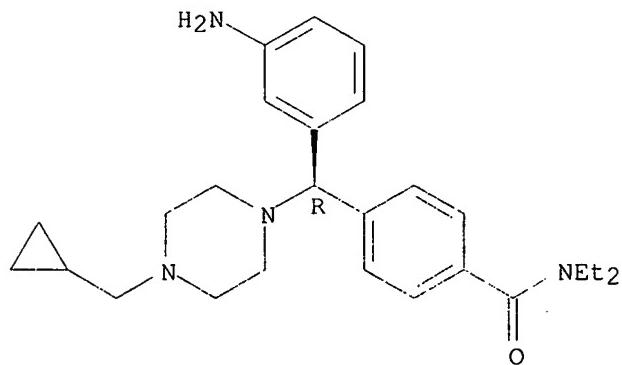
Absolute stereochemistry. Rotation (-).



●24/5 HCl

RN 691879-17-1 HCPLUS
 CN Benzamide, 4-[{(R)-(3-aminophenyl)[4-(cyclopropylmethyl)-1-piperazinyl]methyl}-N,N-diethyl-, hydrochloride (5:19) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



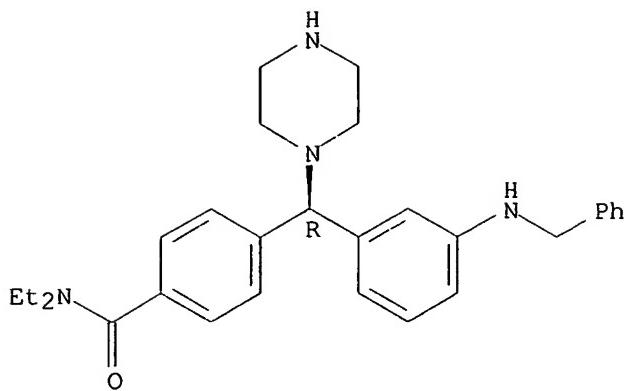
●19/5 HCl

RN 693259-21-1 HCPLUS
 CN Benzamide, N,N-diethyl-4-[{(R)-[3-[(phenylmethyl)amino]phenyl]-1-piperazinylmethyl}-, trifluoroacetate (5:9) (9CI) (CA INDEX NAME)

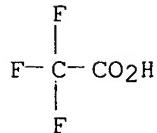
CM 1

CRN 691877-74-4
 CMF C29 H36 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
CMF C2 H F3 O2

- IT 691877-68-6P, (S)-N,N-Diethyl-4-[(piperazin-1-yl)[3-[(1,3-thiazol-2-ylmethyl)amino]phenyl]methyl]benzamide 691877-69-7P,
(R)-N,N-Diethyl-4-[(piperazin-1-yl)[3-[(1,3-thiazol-2-ylmethyl)amino]phenyl]methyl]benzamide 691877-70-0P,
(S)-4-[[3-(Benzylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691877-71-1P, (R)-N,N-Diethyl-4-[(piperazin-1-yl)[3-[(thien-2-ylmethyl)amino]phenyl]methyl]benzamide 691877-72-2P,
(S)-N,N-Diethyl-4-[(piperazin-1-yl)[3-[(thien-2-ylmethyl)amino]phenyl]methyl]benzamide 691877-73-3P,
(S)-N,N-Diethyl-4-[[3-[(2-furylmethyl)amino]phenyl](piperazin-1-yl)methyl]benzamide 691877-74-4P, (R)-4-[[3-(Benzylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691877-75-5P, (R)-N,N-Diethyl-4-[[3-[(2-furylmethyl)amino]phenyl](piperazin-1-yl)methyl]benzamide 691877-76-6P, (R)-N,N-Diethyl-4-[(piperazin-1-yl)[3-[(thien-3-ylmethyl)amino]phenyl]methyl]benzamide 691877-77-7P,
(S)-N,N-Diethyl-4-[(piperazin-1-yl)[3-[(thien-3-ylmethyl)amino]phenyl]methyl]benzamide 691877-78-8P,
(R)-N,N-Diethyl-4-[[3-[(3-furylmethyl)amino]phenyl](piperazin-1-yl)methyl]benzamide 691877-79-9P 691877-80-2P,
(R)-4-[[3-[(Cyclohexylmethyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691877-81-3P, (R)-N,N-Diethyl-4-[(piperazin-1-yl)[3-[(4-trifluoromethylbenzyl)amino]phenyl]methyl]benzamide 691877-82-4P, (R)-4-[[3-[(Cyclopentylmethyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide hydrochloride (1:0.6)
691877-83-5P, (S)-4-[[3-[(Cyclohexylmethyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691877-85-7P,
(R)-4-[[3-[(Cyclohex-1-en-1-ylmethyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691877-86-8P, (S)-N,N-Diethyl-4-[[3-

[methyl(phenyl)amino]phenyl](piperazin-1-yl)methyl]benzamide hydrochloride 691877-87-9P, (S)-N,N-Diethyl-4-[[3-[ethyl(phenyl)amino]phenyl](piperazin-1-yl)methyl]benzamide hydrochloride 691877-88-0P, (R)-N,N-Diethyl-4-[[3-[ethyl(phenyl)amino]phenyl](piperazin-1-yl)methyl]benzamide hydrochloride 691877-89-1P, (R)-4-[[3-(Cyclopentylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691877-90-4P, (R)-4-[[3-(Cycloheptylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691877-91-5P, (R)-4-[[3-(Cyclooctylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691877-92-6P, (R)-4-[[3-(Cyclononylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691877-94-8P, (R)-N,N-Diethyl-4-[[3-[(4-methylphenyl)amino]phenyl](piperazin-1-yl)methyl]benzamide hydrochloride (1:2.9) 691877-95-9P, (S)-N,N-Diethyl-4-[[3-[(4-methylphenyl)amino]phenyl](piperazin-1-yl)methyl]benzamide trihydrochloride 691877-96-0P, (R)-4-[[3-[(3-Chlorophenyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide hydrochloride (1:2.9) 691877-97-1P, (S)-4-[[3-[(3-Chlorophenyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide hydrochloride 691877-98-2P, (R)-4-[[3-[(2-Fluorophenyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide hydrochloride (1:2.9) 691877-99-3P, (R)-4-[[3-(Benzoylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-00-9P, (R)-N,N-Diethyl-4-[[3-[(phenylacetyl)amino]phenyl](piperazin-1-yl)methyl]benzamide 691878-01-0P, (S)-4-[[3-(Benzoylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-02-1P, (S)-N,N-Diethyl-4-[[3-[(phenylacetyl)amino]phenyl](piperazin-1-yl)methyl]benzamide 691878-03-2P, (R)-N,N-Diethyl-4-[[3-[(2-methyl-2-phenylpropanoyl)amino]phenyl](piperazin-1-yl)methyl]benzamide 691878-04-3P, (R)-N,N-Diethyl-4-[[3-[(3-fluorophenyl)acetyl]amino]phenyl](piperazin-1-yl)methyl]benzamide 691878-05-4P, (R)-4-[[3-[(Cyclohexylacetyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-07-6P, (R)-N,N-Diethyl-4-[[3-[(3-phenylpropanoyl)amino]phenyl](piperazin-1-yl)methyl]benzamide 691878-08-7P, (R)-4-[[3-[(Cyclohexylcarbonyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-11-2P, (R)-4-[[3-[(Benzylsulfonyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-12-3P, (R)-4-[[3-[(Anilinocarbonyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-14-5P, (S)-N,N-Diethyl-4-[(1-piperazinyl)[3-(propylamino)phenyl]methyl]benzamide 691878-15-6P, (S)-4-[[3-(Dipropylamino)phenyl]piperazin-1-ylmethyl]-N,N-diethylbenzamide 691878-19-0P, (R)-4-[[3-(Dipropylamino)phenyl]piperazin-1-ylmethyl]-N,N-diethylbenzamide 691878-21-4P, (S)-N,N-Diethyl-4-[(1-piperazinyl)[3-[[4-(3-pyridinyl)phenyl]methyl]amino]phenyl]methyl]benzamide 691878-23-6P, (S)-N,N-Diethyl-4-[[3-[[4-(1H-imidazol-1-yl)phenyl]methyl]amino]phenyl]piperazin-1-ylmethyl]benzamide 691878-25-8P, (S)-N,N-Diethyl-4-[(1-piperazinyl)[3-[(2-quinolinylmethyl)amino]phenyl]methyl]benzamide 691878-27-0P, (R)-4-[[3-[(2,2-Diphenylethyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-29-2P, (R)-4-[[3-[[4-(1,1-Dimethylethyl)phenyl]methyl]amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-31-6P, (R)-N,N-Diethyl-4-[[3-[[4-phenoxyphenyl]methyl]amino]phenyl](piperazin-1-yl)methyl]benzamide 691878-33-8P, (R)-N,N-Diethyl-4-[[4-(2-propenyl)-1-piperazinyl][3-(propylamino)phenyl]methyl]benzamide 691878-36-1P, (R)-N,N-Diethyl-4-[[4-(2-methoxyethyl)-1-piperazinyl][3-(propylamino)phenyl]methyl]benzamide 691878-37-2P, (R)-N,N-Diethyl-4-[[4-(3-methoxypropyl)-1-piperazinyl][3-

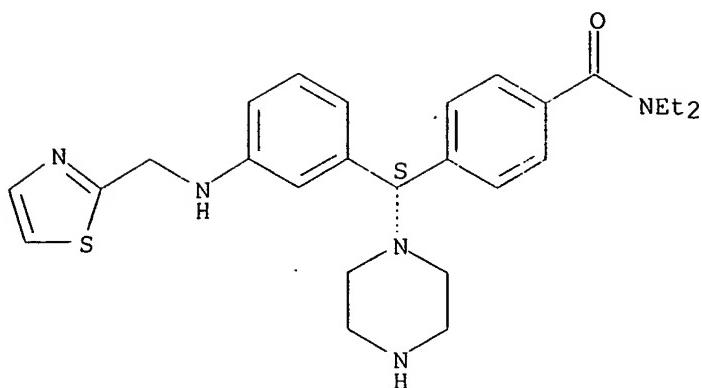
(propylamino)phenyl]methyl]benzamide 691878-40-7P,
 (S)-4-[[3-(Cyclooctylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-41-8P, (S)-N,N-Diethyl-4-[[3-[(3-phenylpropanoyl)amino]phenyl](piperazin-1-yl)methyl]benzamide hydrochloride (1:2.9) 691878-46-3P, (R)-N,N-Diethyl-4-[[4-(2-propenyl)-1-piperazinyl][3-[(2-thienyl)methyl]amino]phenyl]methyl]benzamide 691878-47-4P, (R)-N,N-Diethyl-4-[[4-(3-methyl-2-but enyl)-1-piperazinyl][3-[(2-thienyl)methyl]amino]phenyl]methyl]benzamide 691878-48-5P, (R)-4-[[4-(Cyclopropylmethyl)-1-piperazinyl][3-[(2-thienylmethyl)amino]phenyl]methyl]-N,N-diethylbenzamide 691878-49-6P, (S)-4-[[3-(Cyclohexylamino)phenyl][4-(cyclopropylmethyl)piperazin-1-yl]methyl]-N,N-diethylbenzamide 691878-50-9P, (S)-4-[[3-(Cyclohexylamino)phenyl](4-propylpiperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-51-0P, (S)-4-[[3-(Cyclohexylamino)phenyl](4-ethylpiperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-52-1P, (S)-4-[[4-Allylpiperazin-1-yl][3-(cyclohexylamino)phenyl]methyl]-N,N-diethylbenzamide 691878-53-2P, (S)-4-[[3-[(Cyclohexylcarbonyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-54-3P, (S)-4-[[3-[(Cyclohexylacetyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-55-4P, (S)-4-[[3-[Cyclohexyl(methyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-56-5P, (R)-4-[[3-[Cyclohexyl(methyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-57-6P, (S)-N,N-Diethyl-4-[[3-[ethyl(phenyl)amino]phenyl](piperazin-1-yl)methyl]benzamide 691878-58-7P, (R)-N,N-Diethyl-4-[[3-[methyl(phenyl)amino]phenyl](piperazin-1-yl)methyl]benzamide 691878-59-8P, (R)-N,N-Diethyl-4-[[3-[ethyl(phenyl)amino]phenyl](piperazin-1-yl)methyl]benzamide 691878-60-1P, (S)-4-[[3-[(2-Fluorophenyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-74-7P, (R)-4-[[3-[(Cyclohexylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-88-3P, (S)-N,N-Diethyl-4-[[3-[(phenylsulfonyl)amino]phenyl](piperazin-1-yl)methyl]benzamide 691879-16-0P, (R)-N,N-Diethyl-4-[[3-[(phenylsulfonyl)amino]phenyl](piperazin-1-yl)methyl]benzamide 692726-52-6P 693259-12-0P, (R)-N,N-Diethyl-4-[[3-[methyl(phenyl)amino]phenyl](piperazin-1-yl)methyl]benzamide hydrochloride 693259-13-1P, (S)-4-[[3-[(2-Fluorophenyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trihydrochloride 693259-14-2P 693259-15-3P 693259-16-4P 693259-17-5P 693259-18-6P 693259-19-7P 693259-20-0P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(8 receptor agonist; preparation of (phenylpiperazinylmethyl)benzamide as 8 receptor agonists for treatment of pain, anxiety, or gastrointestinal disorders)

RN 691877-68-6 HCPLUS

CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-[(2-thiazolylmethyl)amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

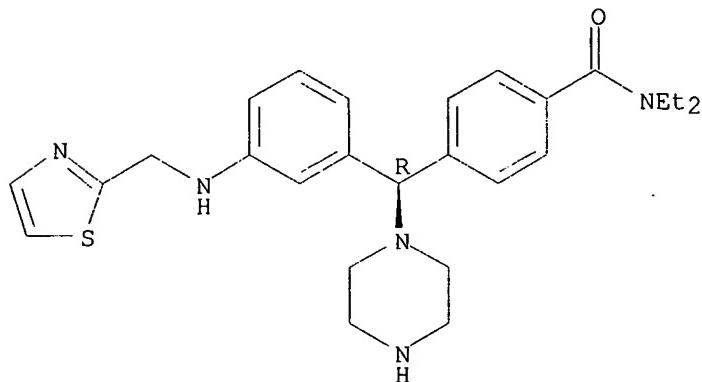
Absolute stereochemistry.



RN 691877-69-7 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl[3-[(2-thiazolylmethyl)amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

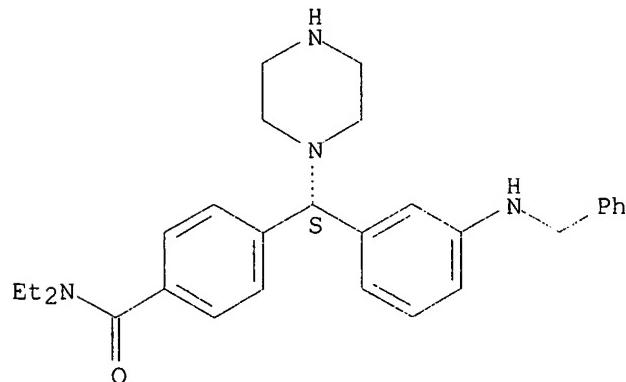
Absolute stereochemistry. Rotation (-).



RN 691877-70-0 HCPLUS

CN Benzamide, N,N-diethyl-4-[(S)-[3-[(phenylmethyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

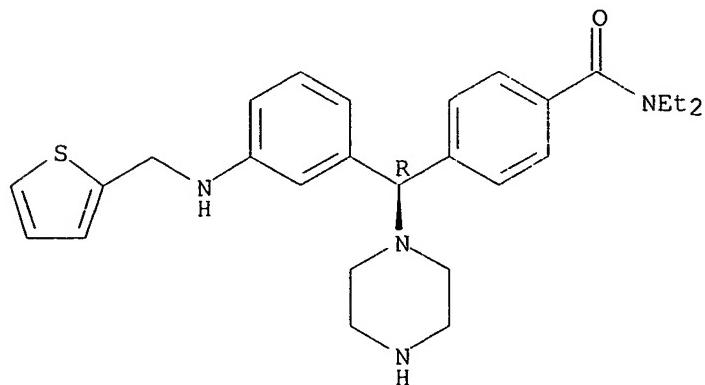
Absolute stereochemistry. Rotation (+).



RN 691877-71-1 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl[3-[(2-thienylmethyl)amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

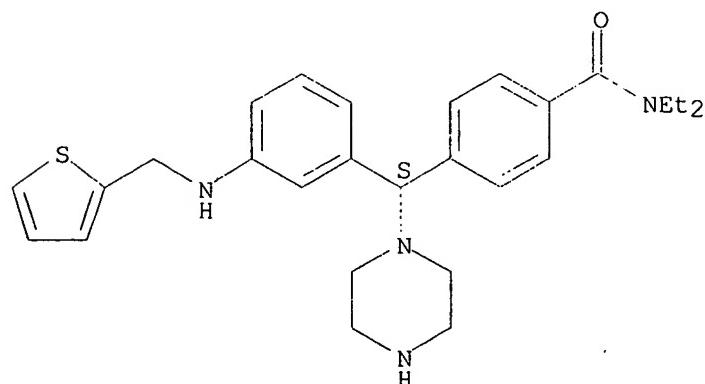
Absolute stereochemistry. Rotation (-).



RN 691877-72-2 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-[(2-thienylmethyl)amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

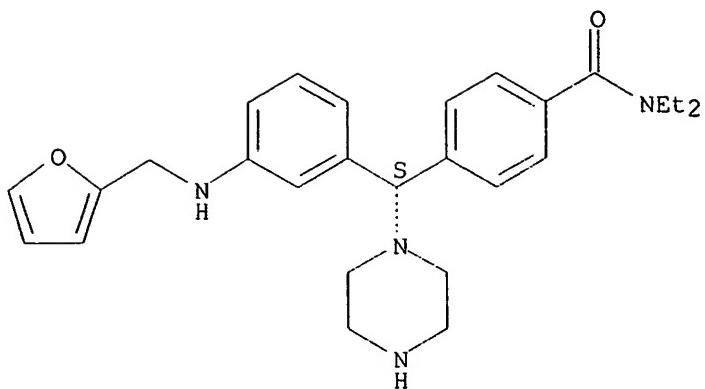
Absolute stereochemistry. Rotation (+).



RN 691877-73-3 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(S)-[3-[(2-furanyl methyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

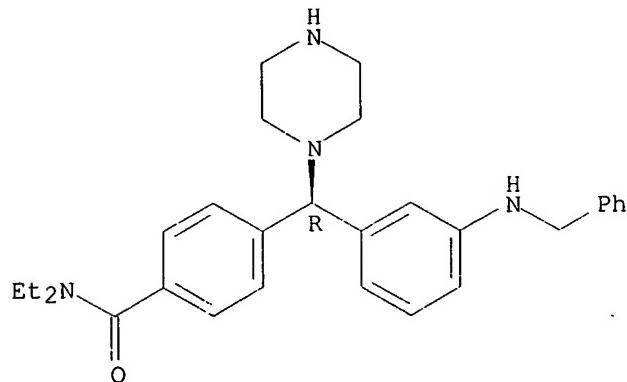
Absolute stereochemistry. Rotation (+).



RN 691877-74-4 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(phenylmethyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

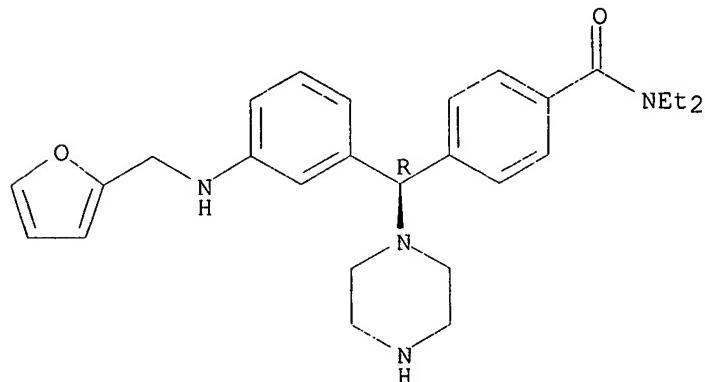
Absolute stereochemistry. Rotation (-).



RN 691877-75-5 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(2-furanyl methyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

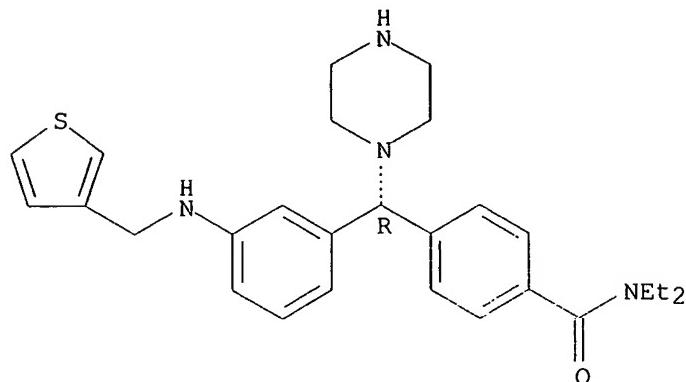
Absolute stereochemistry. Rotation (-).



RN 691877-76-6 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl[3-[(3-thienylmethyl)amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

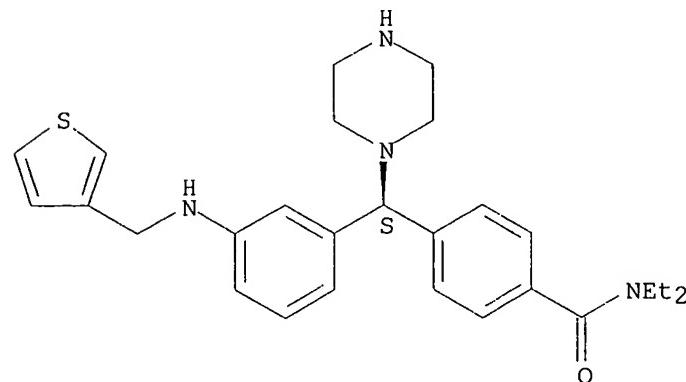
Absolute stereochemistry. Rotation (-).



RN 691877-77-7 HCPLUS

CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-[(3-thienylmethyl)amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

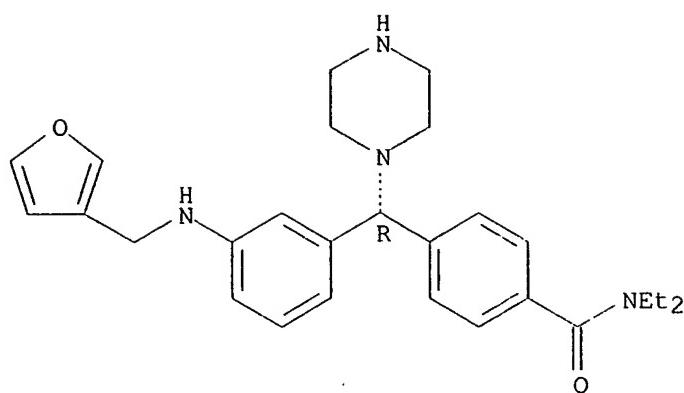
Absolute stereochemistry. Rotation (+).



RN 691877-78-8 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(3-furanyl methyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

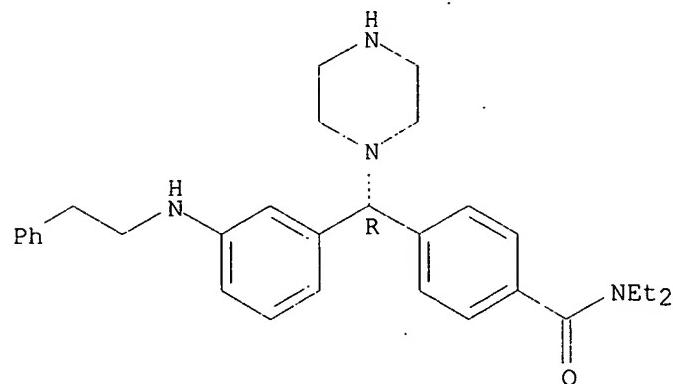
Absolute stereochemistry. Rotation (-).



RN 691877-79-9 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(2-phenylethyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

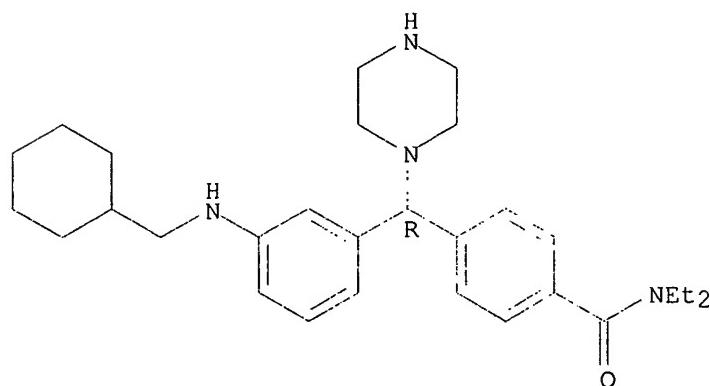
Absolute stereochemistry. Rotation (-).



RN 691877-80-2 HCAPLUS

CN Benzamide, 4-[(R)-[3-[(cyclohexylmethyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

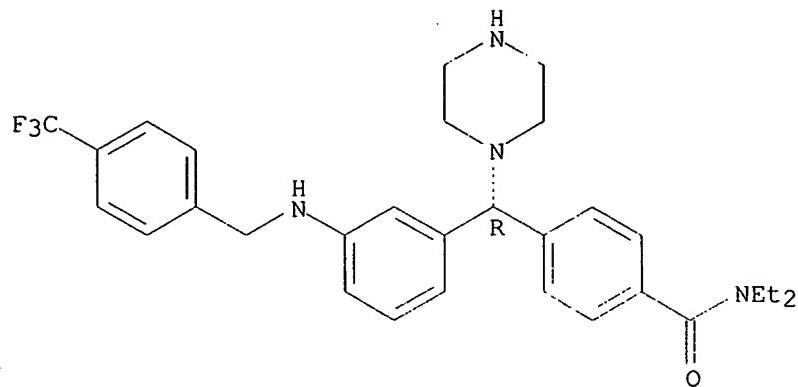
Absolute stereochemistry. Rotation (-).



RN 691877-81-3 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl{3-[{[4-(trifluoromethyl)phenyl]methyl}amino]phenyl}methyl]- (9CI) (CA INDEX NAME)

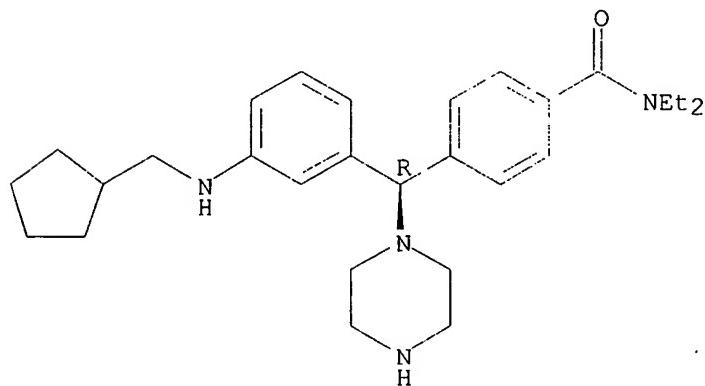
Absolute stereochemistry. Rotation (-).



RN 691877-82-4 HCAPLUS

CN Benzamide, 4-[(R)-{3-[(cyclopentylmethyl)amino]phenyl}-1-piperazinylmethyl]-N,N-diethyl-, hydrochloride (5:3) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

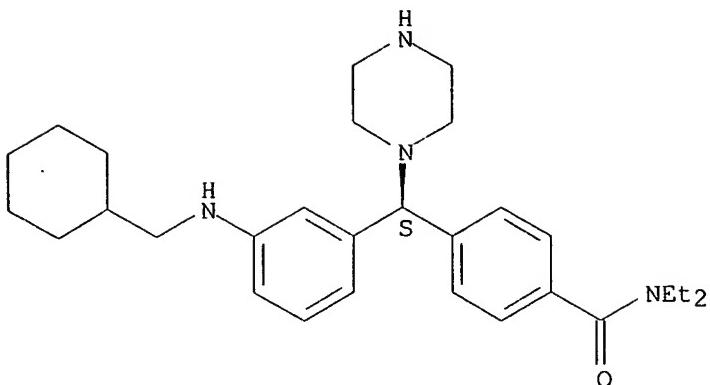


● 3/5 HCl

RN 691877-83-5 HCAPLUS

CN Benzamide, 4-[(S)-{3-[(cyclohexylmethyl)amino]phenyl}-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

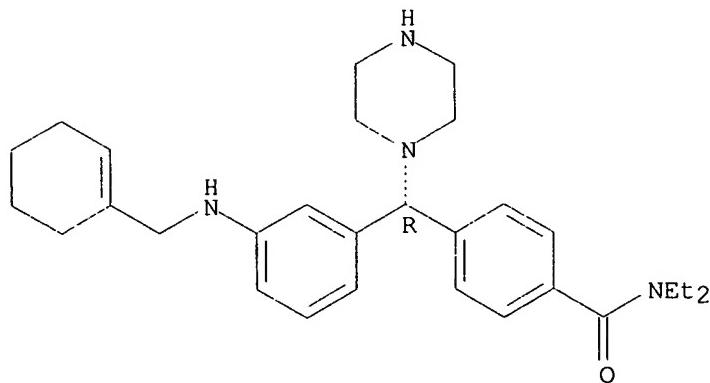
Absolute stereochemistry. Rotation (+).



RN 691877-85-7 HCAPLUS

CN Benzamide, 4-[(R)-[3-[(1-cyclohexen-1-ylmethyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

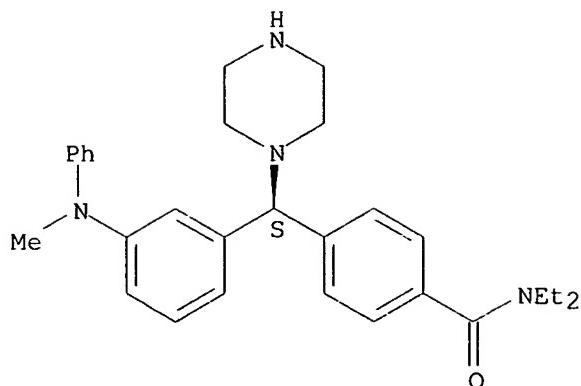
Absolute stereochemistry. Rotation (-).



RN 691877-86-8 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(S)-[3-(methylphenylamino)phenyl]-1-piperazinylmethyl]-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

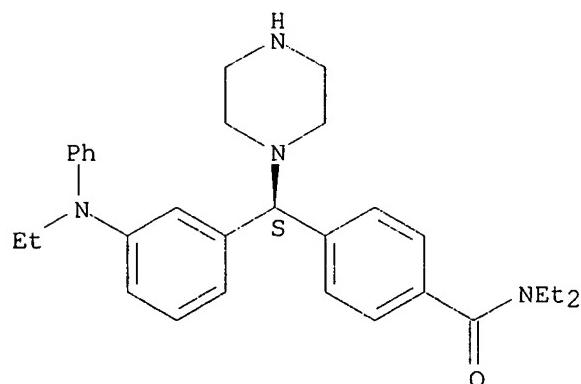


● x HCl

RN 691877-87-9 HCPLUS

CN Benzamide, N,N-diethyl-4-[(S)-[3-(ethylphenylamino)phenyl]-1-piperazinylmethyl]-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

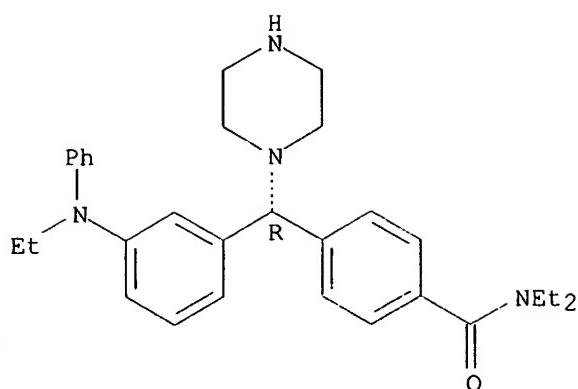


● x HCl

RN 691877-88-0 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-(ethylphenylamino)phenyl]-1-piperazinylmethyl]-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

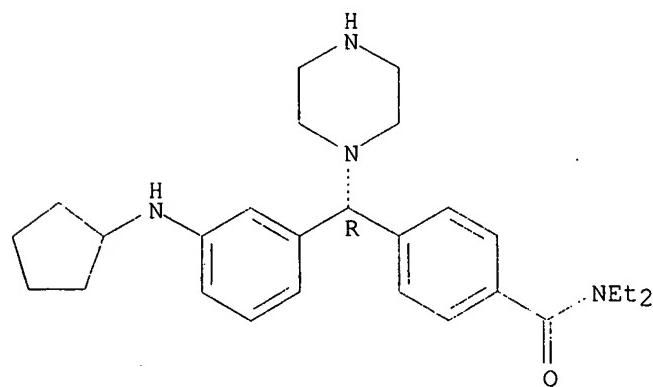


● x HCl

RN 691877-89-1 HCPLUS

CN Benzamide, 4-[(R)-[3-(cyclopentylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

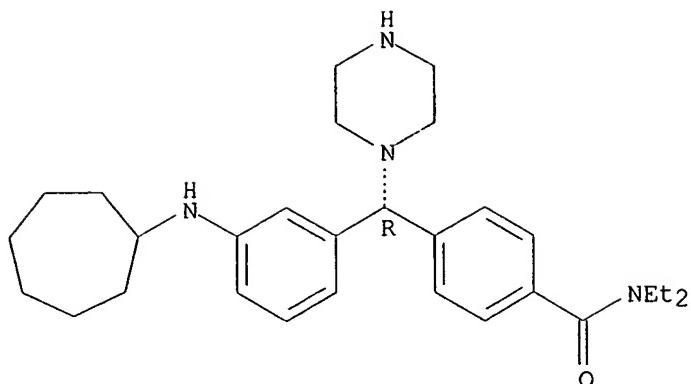
Absolute stereochemistry. Rotation (-).



RN 691877-90-4 HCPLUS

CN Benzamide, 4-[(R)-[3-(cycloheptylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

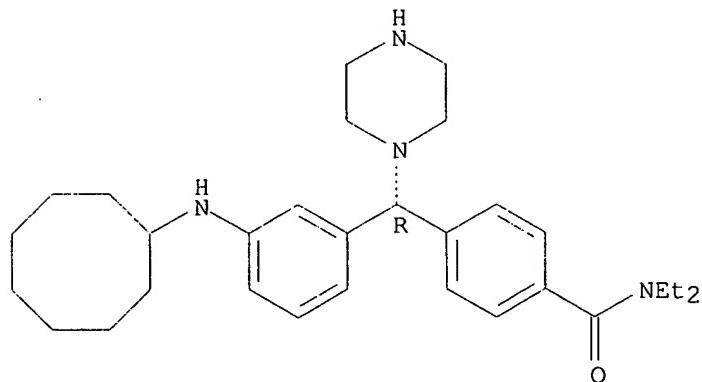
Absolute stereochemistry. Rotation (-).



RN 691877-91-5 HCPLUS

CN Benzamide, 4-[(R)-[3-(cyclooctylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

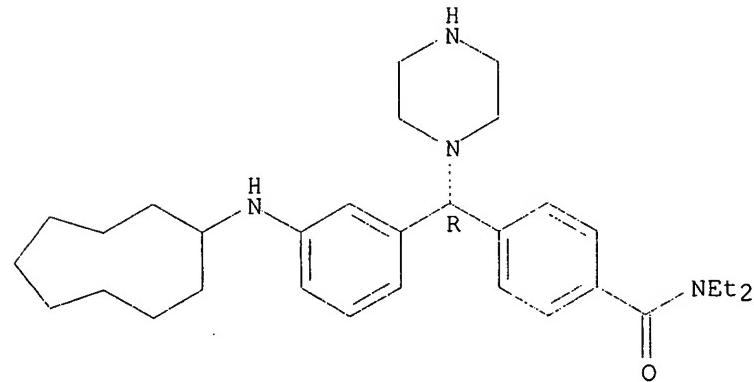
Absolute stereochemistry. Rotation (-).



RN 691877-92-6 HCPLUS

CN Benzamide, 4-[(R)-[3-(cyclononylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

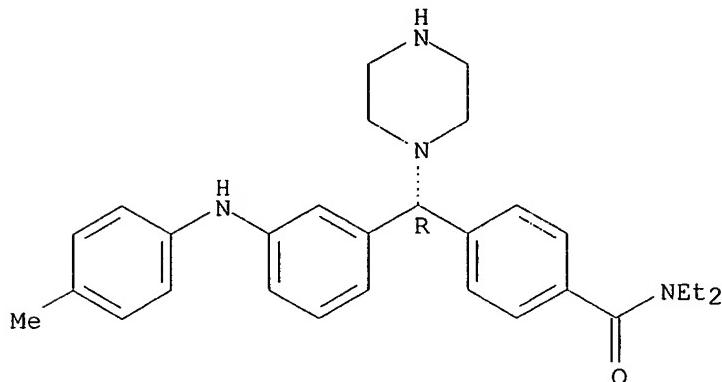
Absolute stereochemistry. Rotation (-).



RN 691877-94-8 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(4-methylphenyl)amino]phenyl]-1-piperazinylmethyl]-, hydrochloride (10:29) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

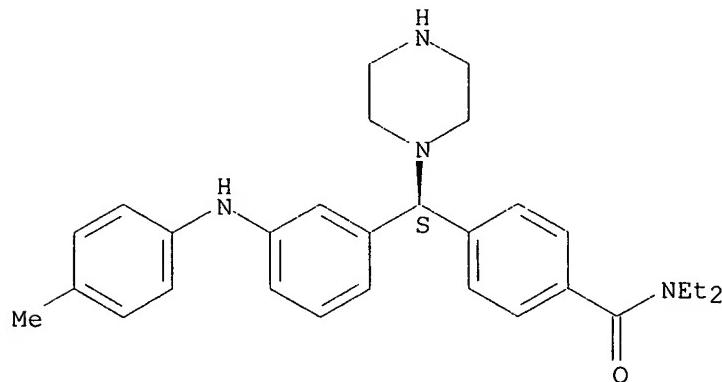


●29/10 HCl

RN 691877-95-9 HCPLUS

CN Benzamide, N,N-diethyl-4-[(S)-[3-[(4-methylphenyl)amino]phenyl]-1-piperazinylmethyl]-, trihydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

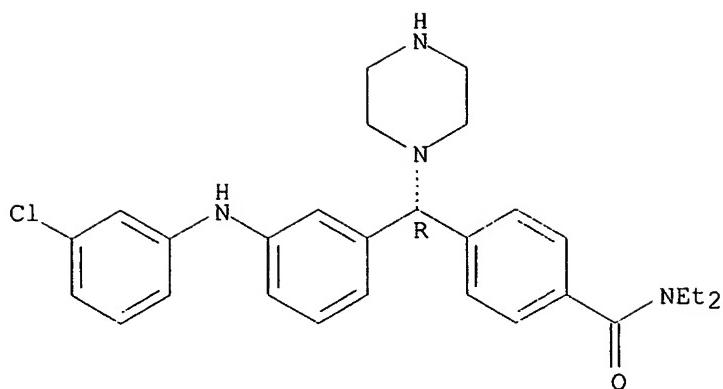


●3 HCl

RN 691877-96-0 HCPLUS

CN Benzamide, 4-[(R)-[3-[(3-chlorophenyl)amino]phenyl]-1-piperazinylmethyl]-, N,N-diethyl-, hydrochloride (10:29) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

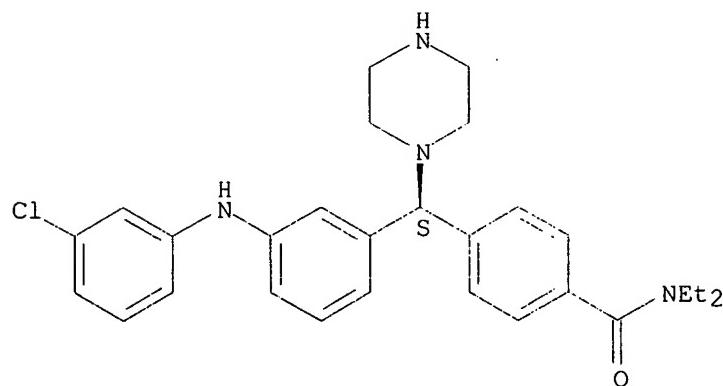


● 29/10 HCl

RN 691877-97-1 HCPLUS

CN Benzamide, 4-[(S)-[3-[(3-chlorophenyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

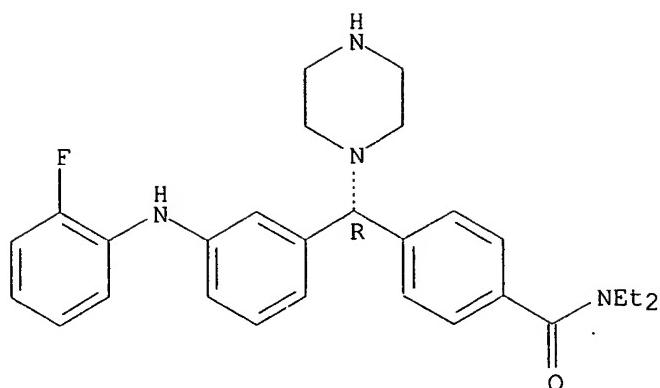


● x HCl

RN 691877-98-2 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(2-fluorophenyl)amino]phenyl]-1-piperazinylmethyl]-, hydrochloride (10:29) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

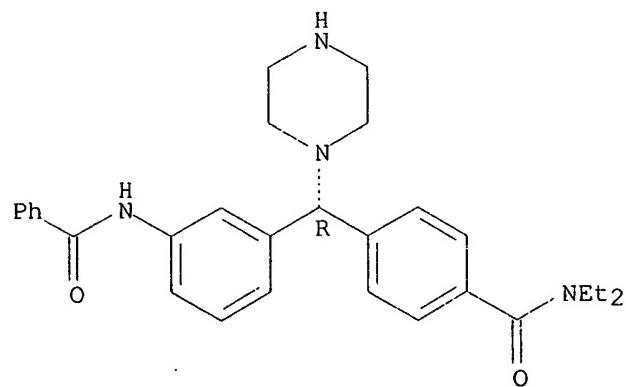


●29/10 HCl

RN 691877-99-3 HCPLUS

CN Benzamide, 4-[*(R)*-[3-(benzoylamino)phenyl]-1-piperazinylmethyl]-*N,N*-diethyl- (9CI) (CA INDEX NAME)

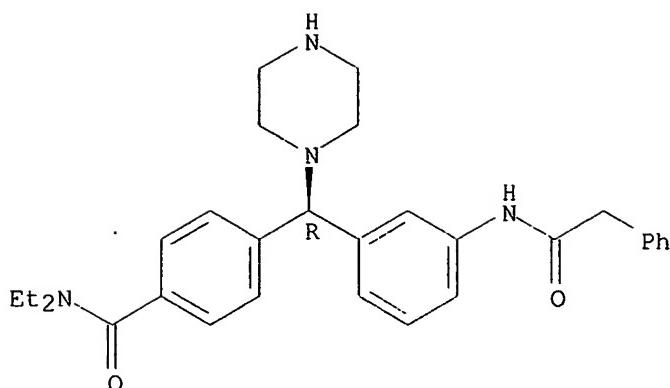
Absolute stereochemistry. Rotation (-).



RN 691878-00-9 HCPLUS

CN Benzeneacetamide, *N*-[3-[*(R)*-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]- (9CI) (CA INDEX NAME)

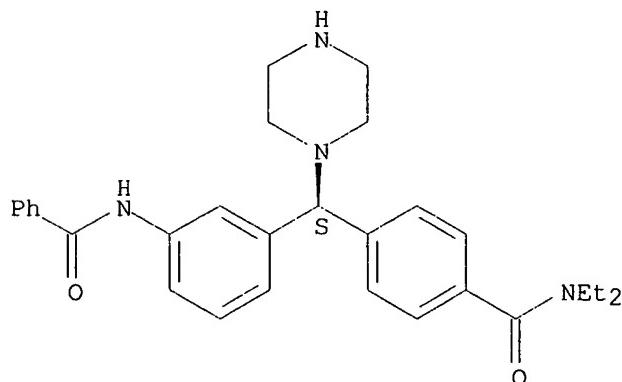
Absolute stereochemistry. Rotation (-).



RN 691878-01-0 HCAPLUS

CN Benzamide, 4-[(S)-{3-(benzoylamino)phenyl}-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

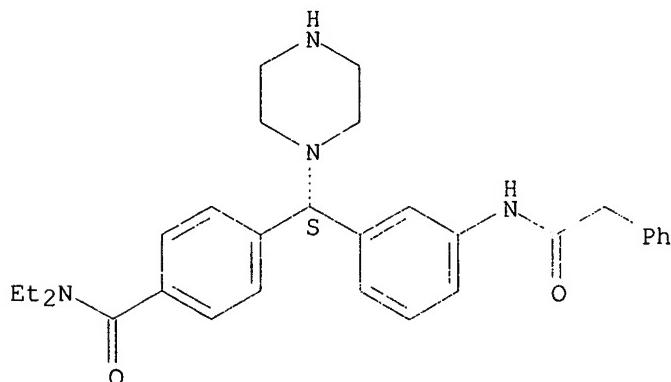
Absolute stereochemistry. Rotation (+).



RN 691878-02-1 HCAPLUS

CN Benzeneacetamide, N-[3-[(S)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]- (9CI) (CA INDEX NAME)

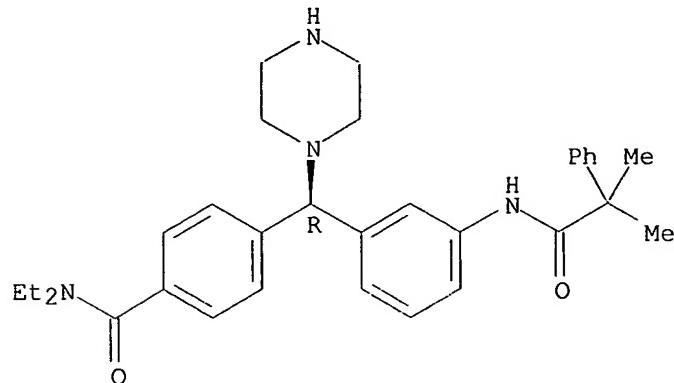
Absolute stereochemistry. Rotation (+).



RN 691878-03-2 HCPLUS

CN Benzeneacetamide, N-[3-[(R)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]- α , α -dimethyl- (9CI) (CA INDEX NAME)

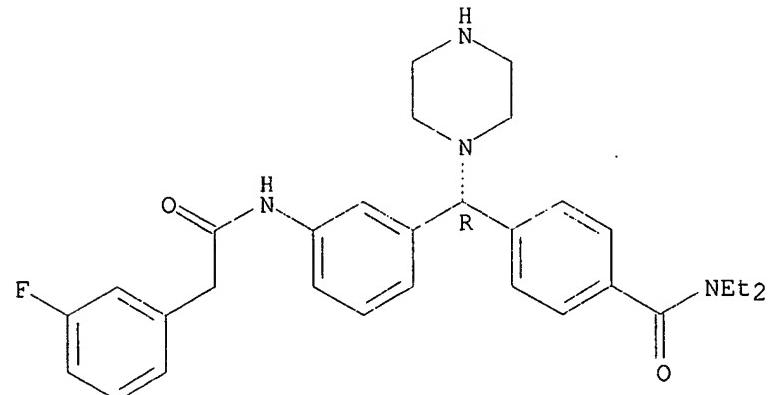
Absolute stereochemistry. Rotation (-).



RN 691878-04-3 HCPLUS

CN Benzeneacetamide, N-[3-[(R)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-3-fluoro- (9CI) (CA INDEX NAME)

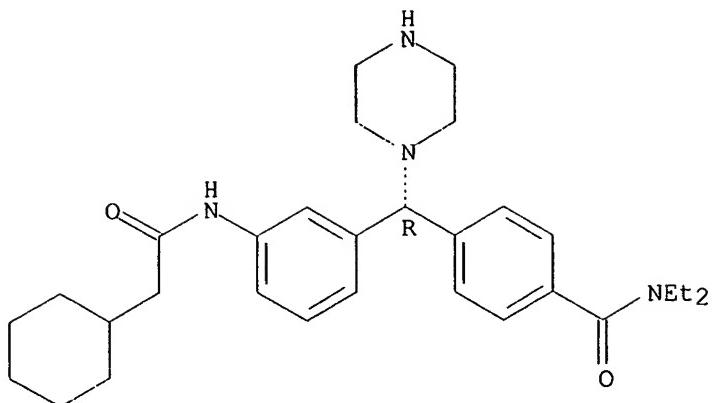
Absolute stereochemistry. Rotation (-).



RN 691878-05-4 HCPLUS

CN Benzamide, 4-[(R)-[3-[(cyclohexylacetyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

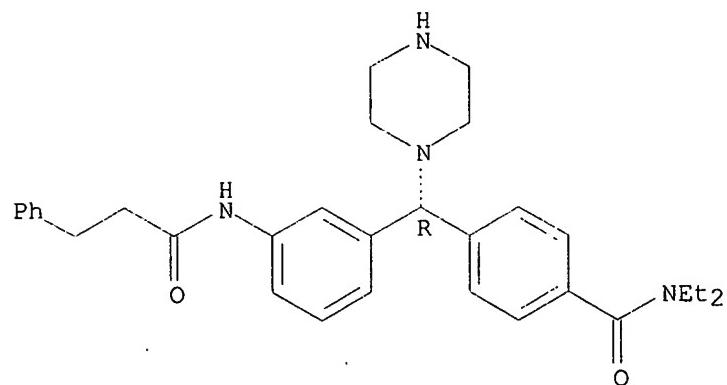
Absolute stereochemistry. Rotation (-).



RN 691878-07-6 HCPLUS

CN Benzenepropanamide, N-[3-[(R)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]- (9CI) (CA INDEX NAME)

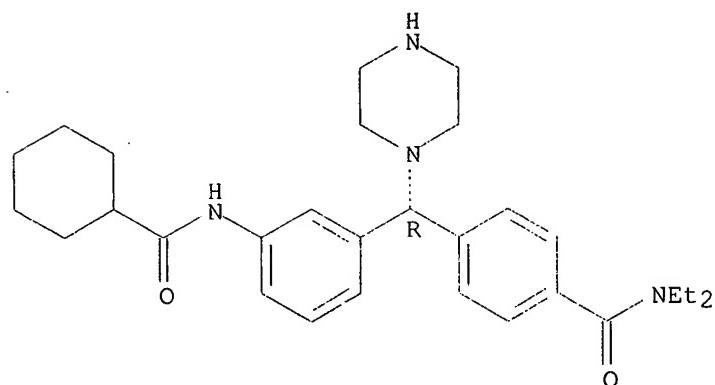
Absolute stereochemistry.



RN 691878-08-7 HCPLUS

CN Benzamide, 4-[(R)-[3-[(cyclohexylcarbonyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

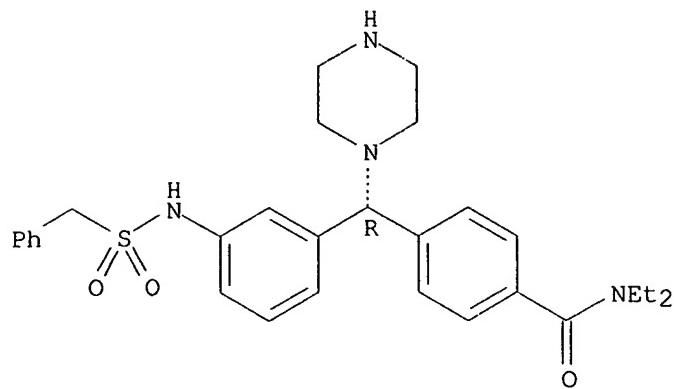
Absolute stereochemistry. Rotation (-).



RN 691878-11-2 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(phenylmethyl)sulfonyl]amino]phenyl]-1-piperazinylmethyl- (9CI) (CA INDEX NAME)

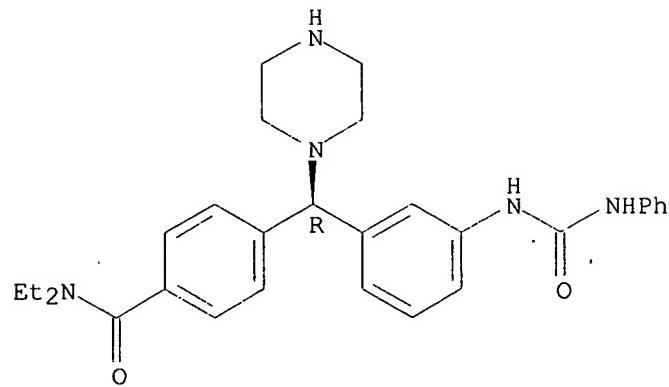
Absolute stereochemistry. Rotation (-).



RN 691878-12-3 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(phenylamino)carbonyl]amino]phenyl]-1-piperazinylmethyl- (9CI) (CA INDEX NAME)

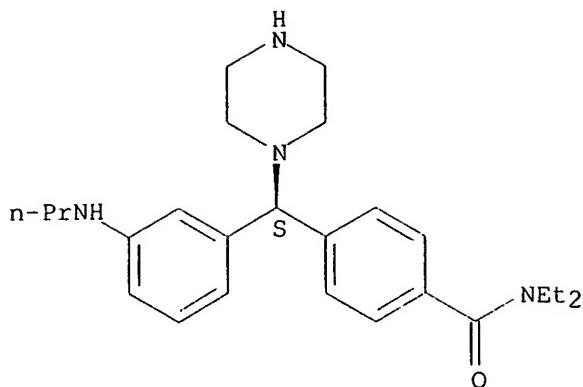
Absolute stereochemistry. Rotation (-).



RN 691878-14-5 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-(propylamino)phenyl]methyl]- (9CI) (CA INDEX NAME)

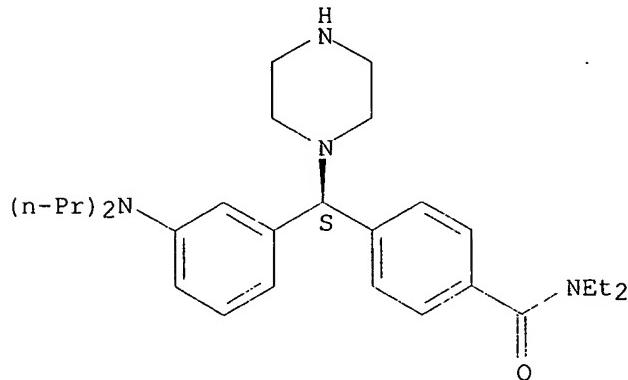
Absolute stereochemistry. Rotation (+).



RN 691878-15-6 HCAPLUS

CN Benzamide, 4-[(S)-[3-(dipropylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

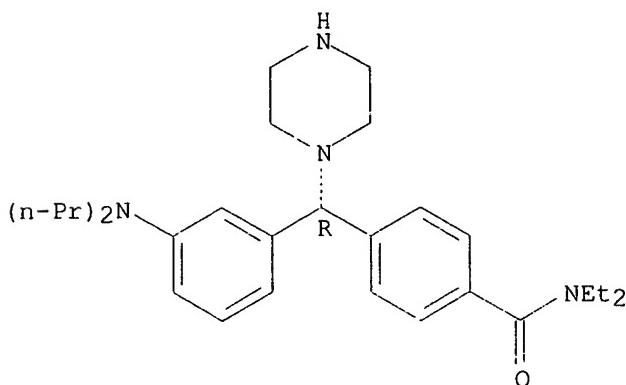
Absolute stereochemistry.



RN 691878-19-0 HCAPLUS

CN Benzamide, 4-[(R)-[3-(dipropylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

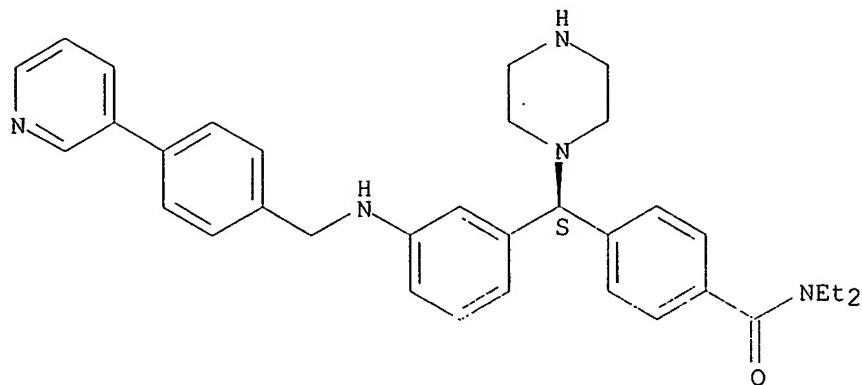
Absolute stereochemistry. Rotation (-).



RN 691878-21-4 HCPLUS

CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-[[4-(3-pyridinyl)phenyl]methyl]amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

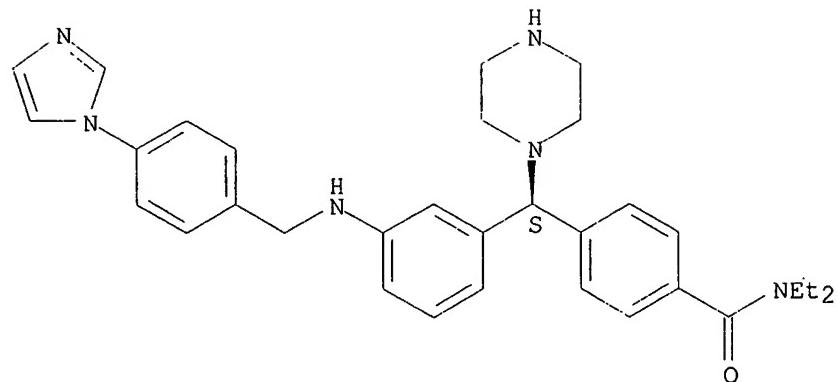
Absolute stereochemistry. Rotation (+).



RN 691878-23-6 HCPLUS

CN Benzamide, N,N-diethyl-4-[(S)-[3-[[4-(1H-imidazol-1-yl)phenyl]methyl]amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

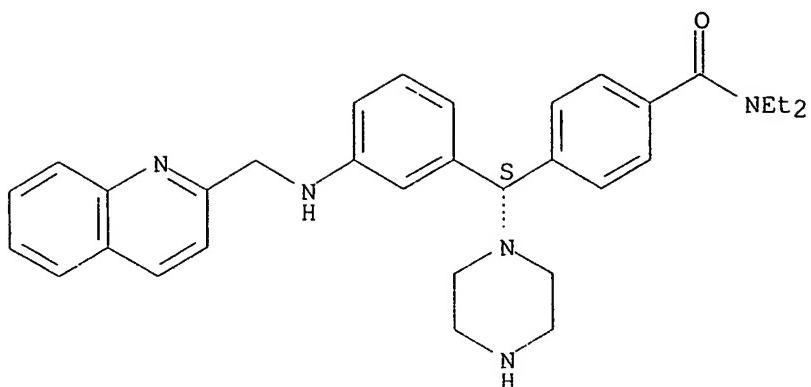
Absolute stereochemistry. Rotation (-).



RN 691878-25-8 HCPLUS

CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-[(2-quinolinylmethyl)amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

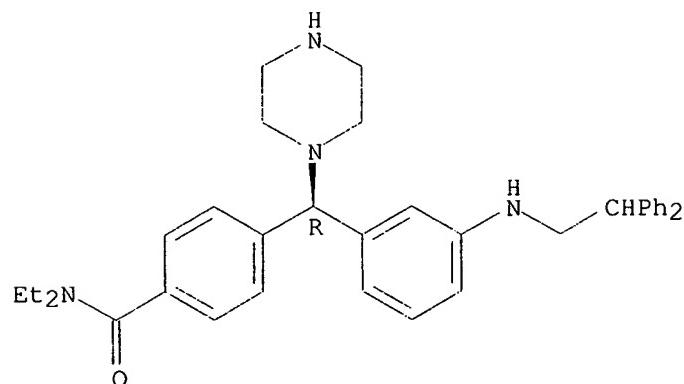
Absolute stereochemistry. Rotation (+).



RN 691878-27-0 HCAPLUS

CN Benzamide, 4-[{(R)-[3-[(2,2-diphenylethyl)amino]phenyl]-1-piperazinylmethyl}-N,N-diethyl- (9CI) (CA INDEX NAME)

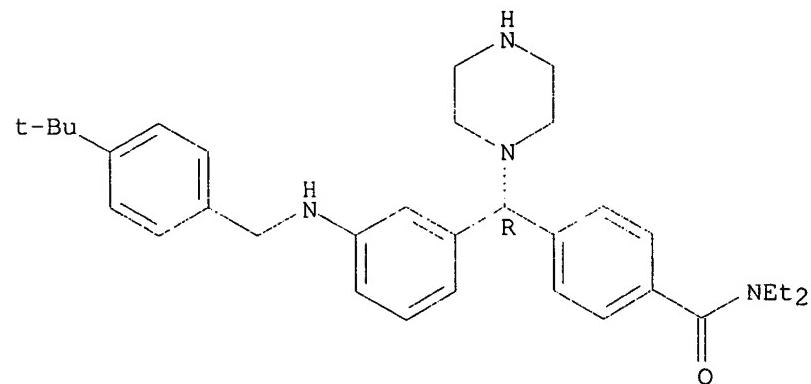
Absolute stereochemistry. Rotation (+).



RN 691878-29-2 HCAPLUS

CN Benzamide, 4-[{(R)-[3-[[[4-(1,1-dimethylethyl)phenyl]methyl]amino]phenyl]-1-piperazinylmethyl}-N,N-diethyl- (9CI) (CA INDEX NAME)

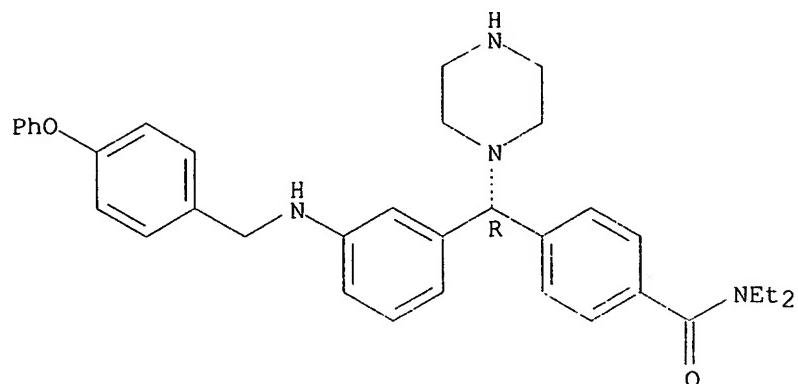
Absolute stereochemistry. Rotation (-).



RN 691878-31-6 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(4-phenoxyphenyl)methyl]amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

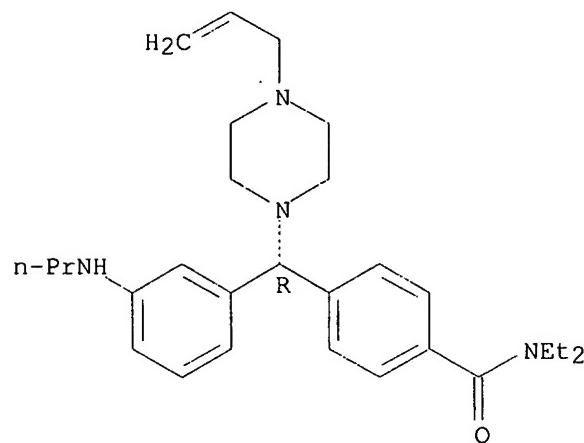
Absolute stereochemistry. Rotation (-).



RN 691878-33-8 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[4-(2-propenyl)-1-piperazinyl][3-(propylamino)phenyl]methyl]- (9CI) (CA INDEX NAME)

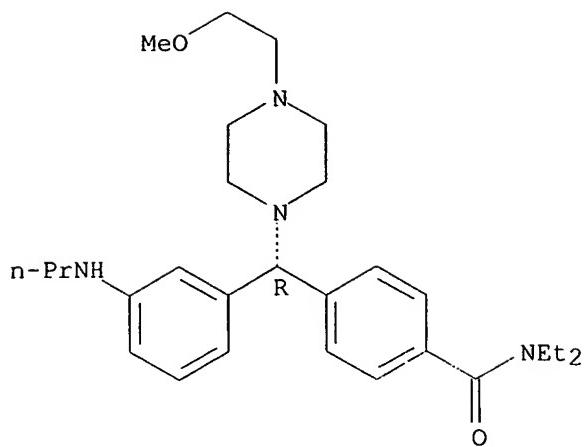
Absolute stereochemistry. Rotation (-).



RN 691878-36-1 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[4-(2-methoxyethyl)-1-piperazinyl][3-(propylamino)phenyl]methyl]- (9CI) (CA INDEX NAME)

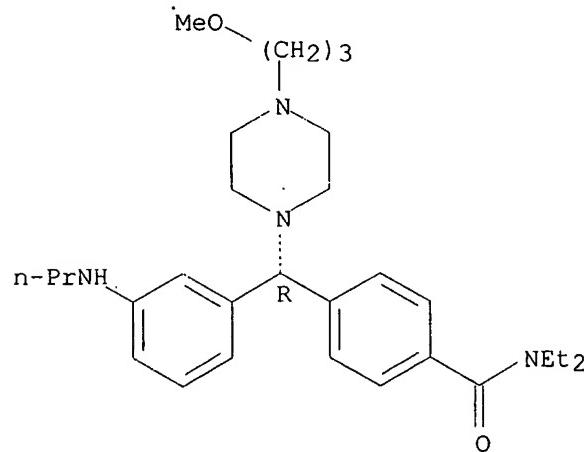
Absolute stereochemistry. Rotation (-).



RN 691878-37-2 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[4-(3-methoxypropyl)-1-piperazinyl][3-(propylamino)phenyl]methyl]- (9CI) (CA INDEX NAME)

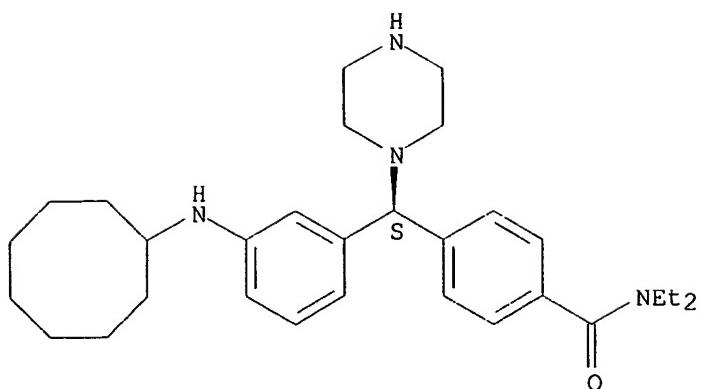
Absolute stereochemistry. Rotation (-).



RN 691878-40-7 HCAPLUS

CN Benzamide, 4-[(S)-[3-(cyclooctylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

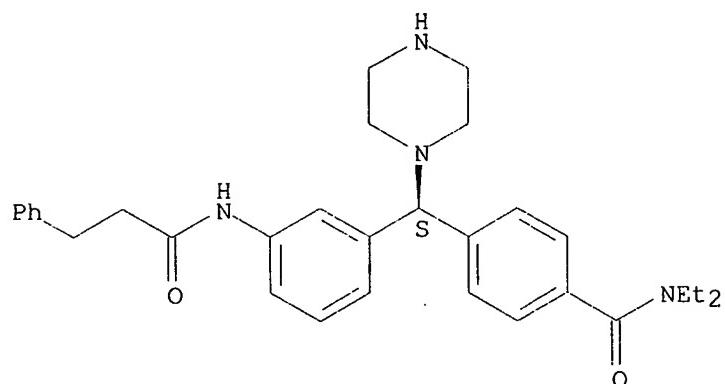
Absolute stereochemistry. Rotation (+).



RN 691878-41-8 HCAPLUS

CN Benzene propanamide, N-[3-[(S)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-, hydrochloride (10:29) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

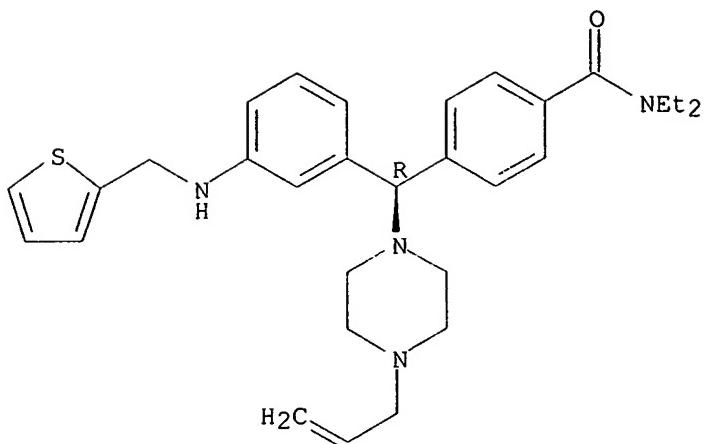


● 29/10 HCl

RN 691878-46-3 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[4-(2-propenyl)-1-piperazinyl][3-[(2-thienylmethyl)amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

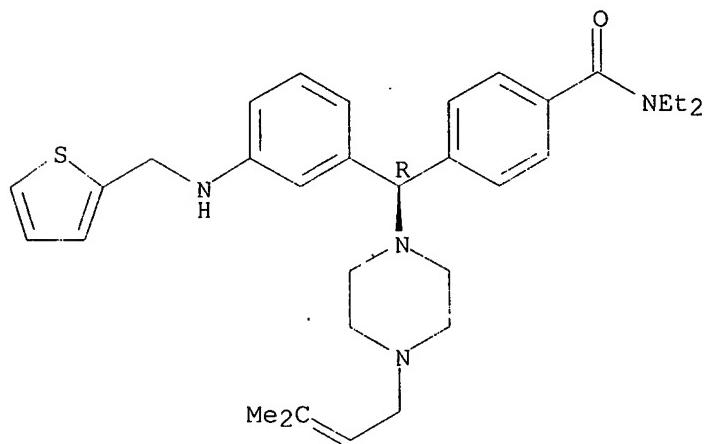
Absolute stereochemistry. Rotation (-).



RN 691878-47-4 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[4-(3-methyl-2-buteneyl)-1-piperazinyl][3-[(2-thienylmethyl)amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

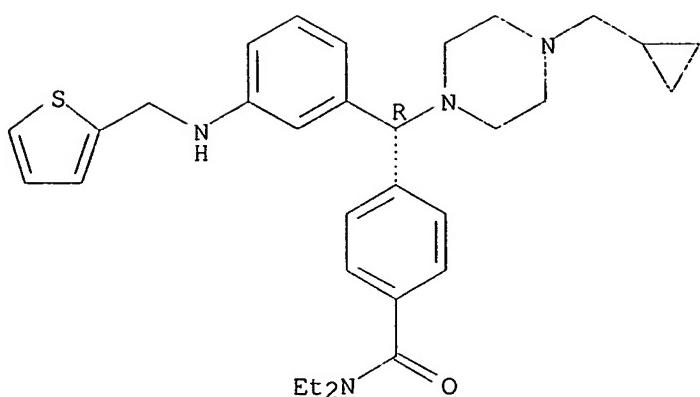
Absolute stereochemistry. Rotation (-).



RN 691878-48-5 HCPLUS

CN Benzamide, 4-[(R)-[4-(cyclopropylmethyl)-1-piperazinyl][3-[(2-thienylmethyl)amino]phenyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

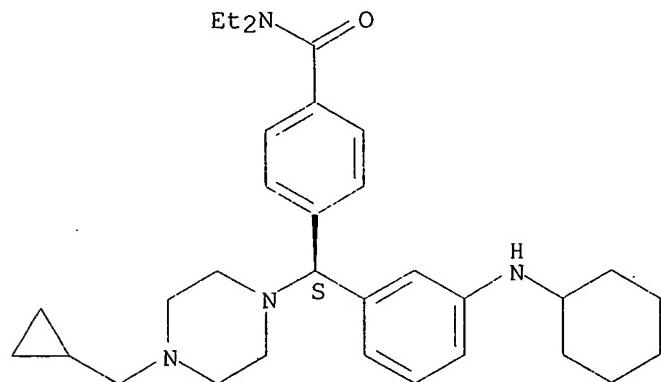
Absolute stereochemistry. Rotation (-).



RN 691878-49-6 HCPLUS

CN Benzamide, 4-[(S)-[3-(cyclohexylamino)phenyl][4-(cyclopropylmethyl)-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

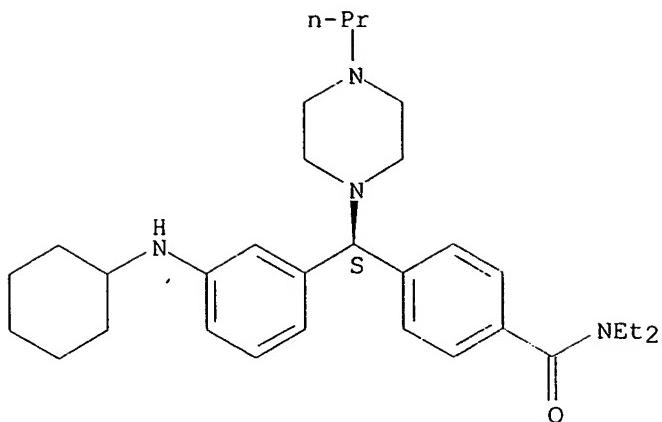
Absolute stereochemistry. Rotation (+).



RN 691878-50-9 HCPLUS

CN Benzamide, 4-[(S)-[3-(cyclohexylamino)phenyl](4-propyl-1-piperazinyl)methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

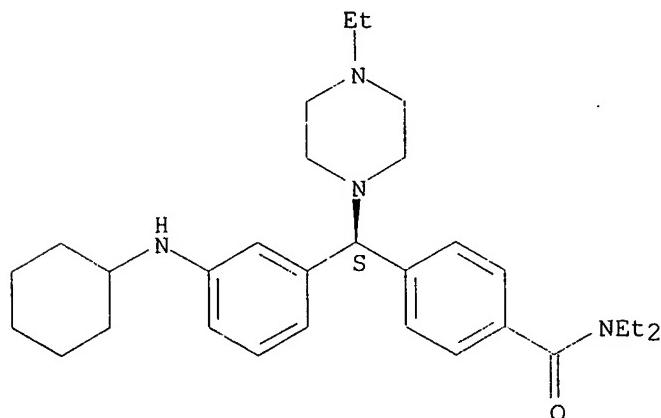
Absolute stereochemistry. Rotation (+).



RN 691878-51-0 HCPLUS

CN Benzamide, 4-[(S)-[3-(cyclohexylamino)phenyl](4-ethyl-1-piperazinyl)methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

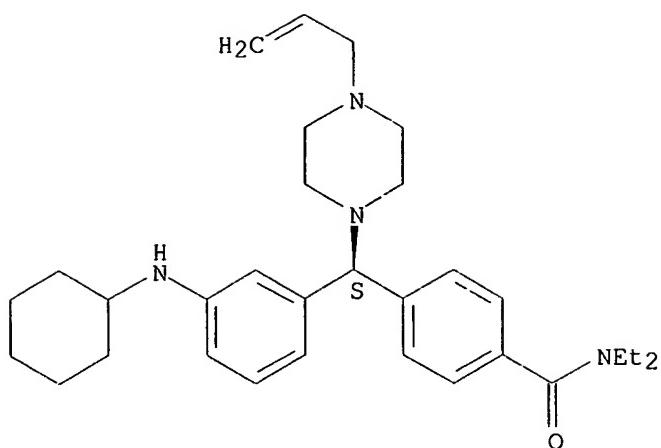
Absolute stereochemistry. Rotation (+).



RN 691878-52-1 HCPLUS

CN Benzamide, 4-[(S)-[3-(cyclohexylamino)phenyl][4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

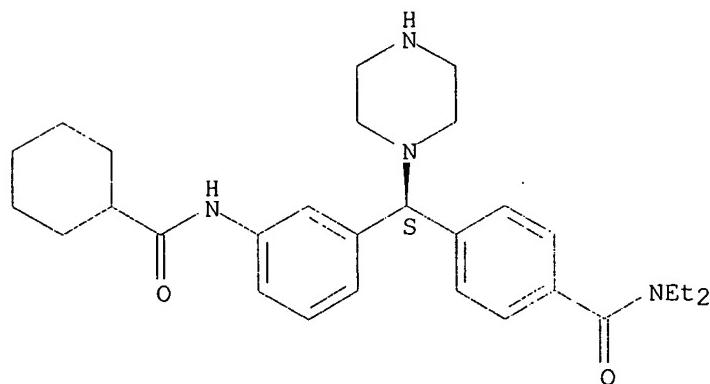
Absolute stereochemistry. Rotation (+).



RN 691878-53-2 HCPLUS

CN Benzamide, 4-[(S)-[3-[(cyclohexylcarbonyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

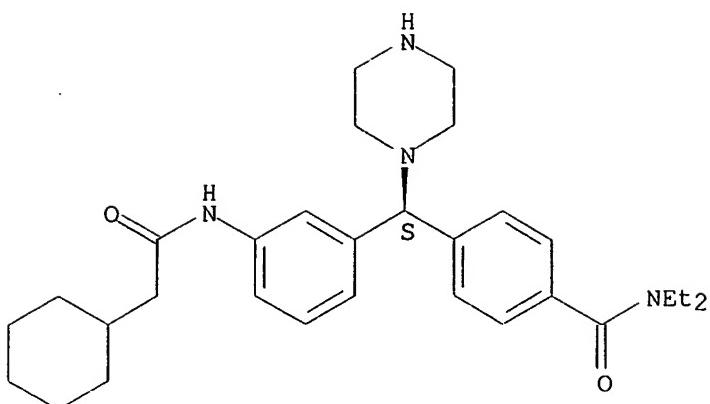
Absolute stereochemistry. Rotation (+).



RN 691878-54-3 HCPLUS

CN Benzamide, 4-[(S)-[3-[(cyclohexylacetyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

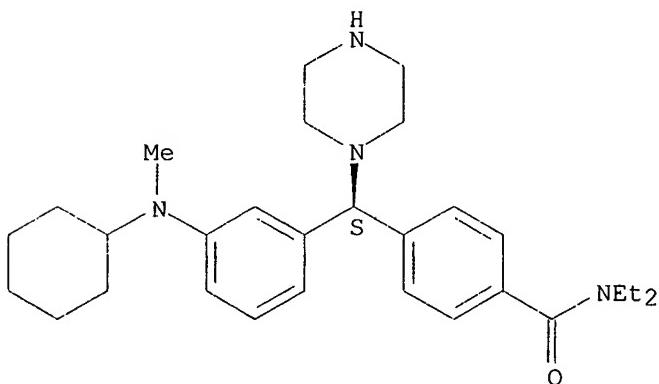
Absolute stereochemistry. Rotation (+).



RN 691878-55-4 HCPLUS

CN Benzamide, 4-[(S)-[3-(cyclohexylmethylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

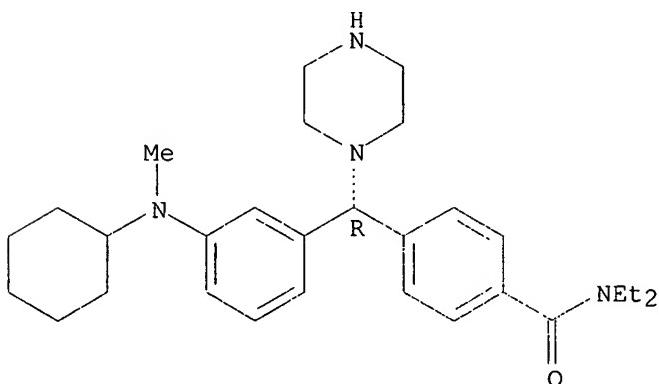
Absolute stereochemistry. Rotation (+).



RN 691878-56-5 HCPLUS

CN Benzamide, 4-[(R)-[3-(cyclohexylmethylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

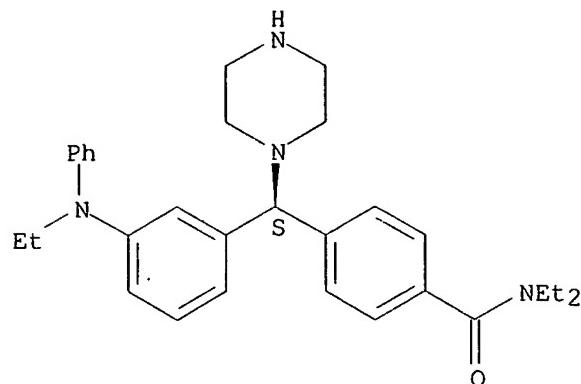
Absolute stereochemistry. Rotation (-).



RN 691878-57-6 HCPLUS

CN Benzamide, N,N-diethyl-4-[(S)-[3-(ethylphenylamino)phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

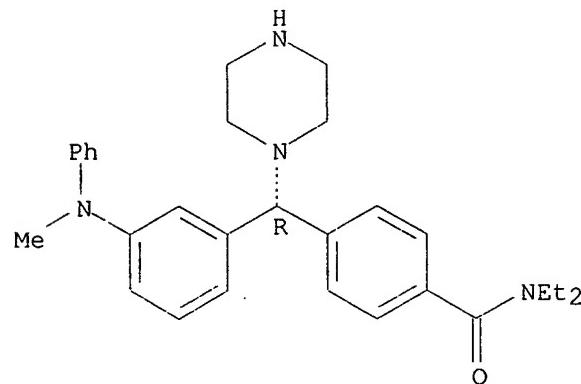
Absolute stereochemistry.



RN 691878-58-7 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-(methylphenylamino)phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

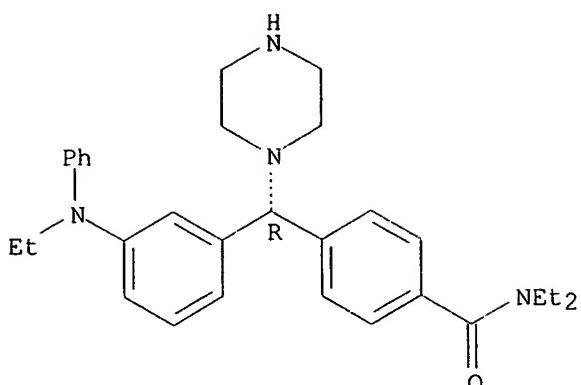
Absolute stereochemistry.



RN 691878-59-8 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-(ethylphenylamino)phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

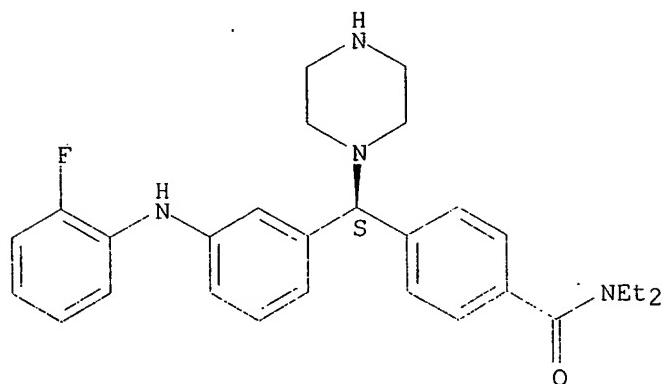
Absolute stereochemistry.



RN 691878-60-1 HCPLUS

CN Benzamide, N,N-diethyl-4-[(S)-[3-[(2-fluorophenyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

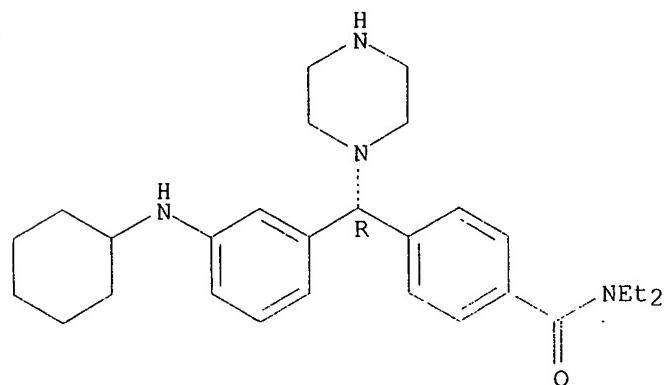
Absolute stereochemistry.



RN 691878-74-7 HCPLUS

CN Benzamide, 4-[(R)-[3-(cyclohexylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

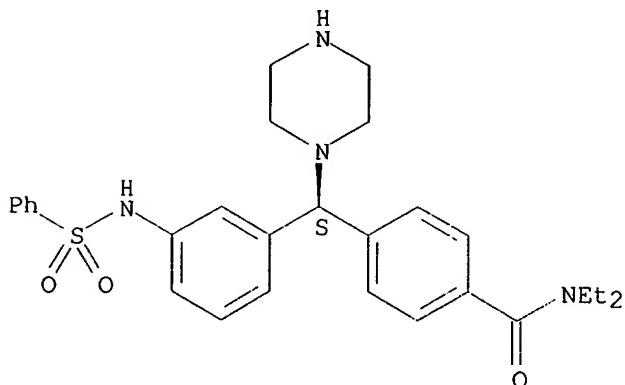
Absolute stereochemistry. Rotation (-).



RN 691878-88-3 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(S)-[3-[(phenylsulfonyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

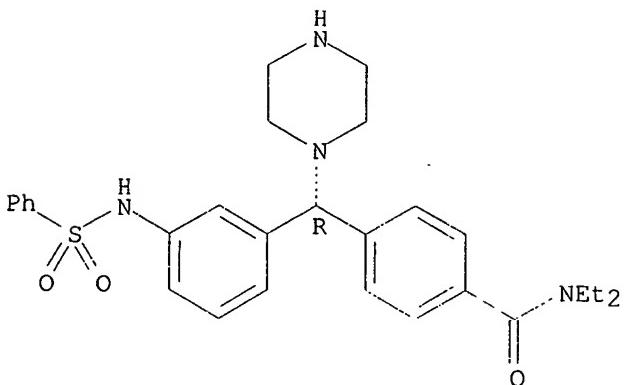
Absolute stereochemistry. Rotation (+).



RN 691879-16-0 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(phenylsulfonyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

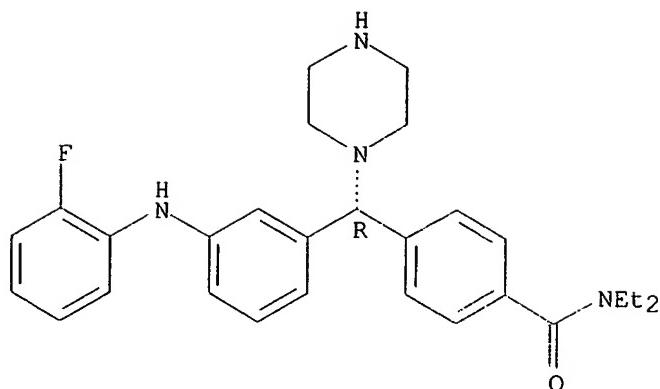
Absolute stereochemistry. Rotation (-).



RN 692726-52-6 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(2-fluorophenyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

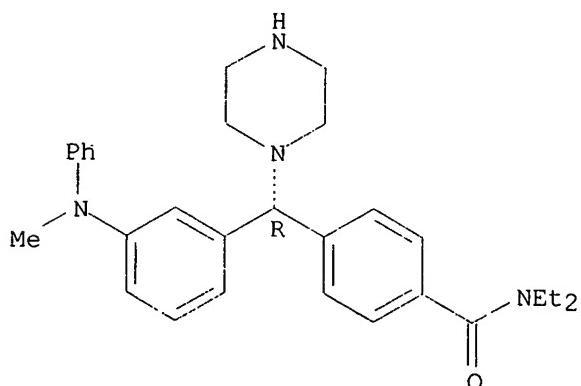
Absolute stereochemistry. Rotation (+).



RN 693259-12-0 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-(methylphenylamino)phenyl]-1-piperazinylmethyl]-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

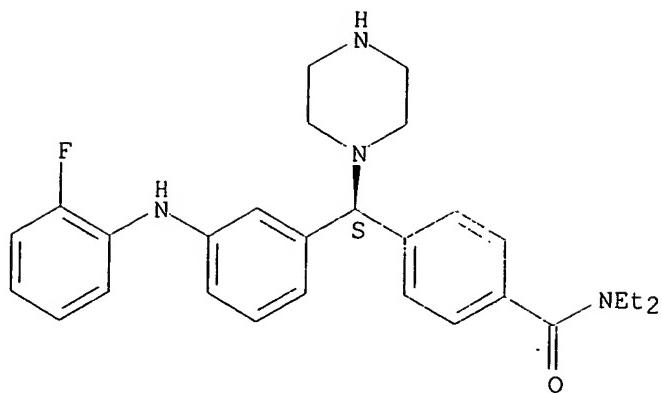


● x HCl

RN 693259-13-1 HCPLUS

CN Benzamide, N,N-diethyl-4-[(S)-[3-[(2-fluorophenyl)amino]phenyl]-1-piperazinylmethyl]-, trihydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

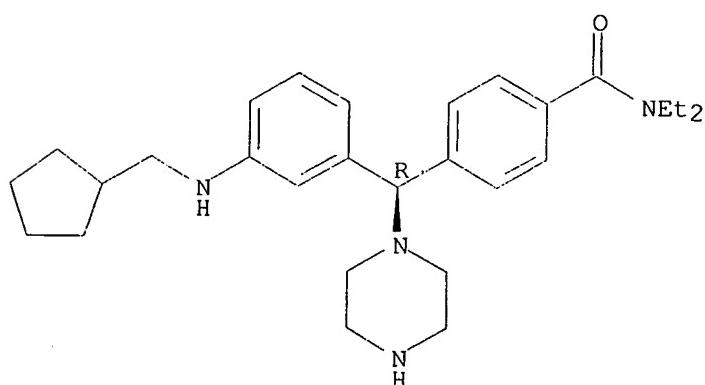


● 3 HCl

RN 693259-14-2 HCPLUS

CN Benzamide, 4-[(R)-[3-[(cyclopentylmethyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

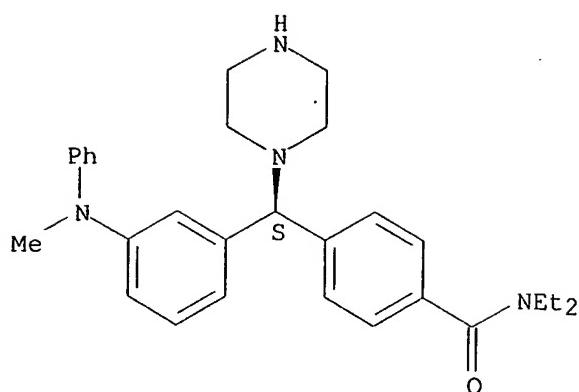
Absolute stereochemistry. Rotation (-).



RN 693259-15-3 HCPLUS

CN Benzamide, N,N-diethyl-4-[(S)-[3-(methylphenylamino)phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

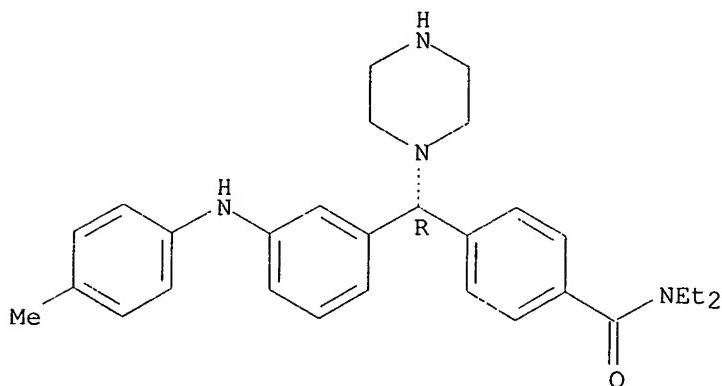
Absolute stereochemistry. Rotation (+).



RN 693259-16-4 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(4-methylphenyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

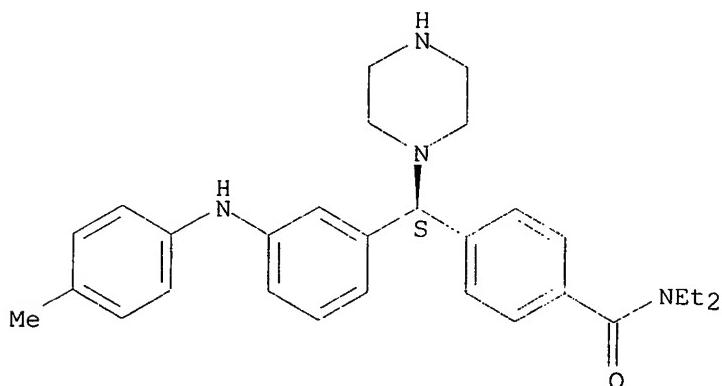
Absolute stereochemistry. Rotation (-).



RN 693259-17-5 HCPLUS

CN Benzamide, N,N-diethyl-4-[(S)-[3-[(4-methylphenyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

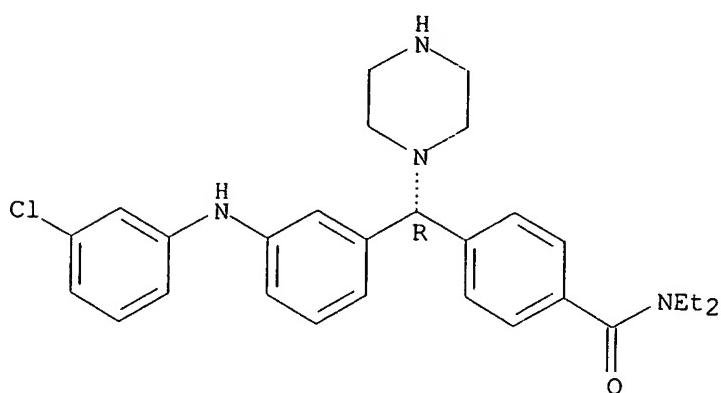
Absolute stereochemistry. Rotation (+).



RN 693259-18-6 HCPLUS

CN Benzamide, 4-[(R)-[3-[(3-chlorophenyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

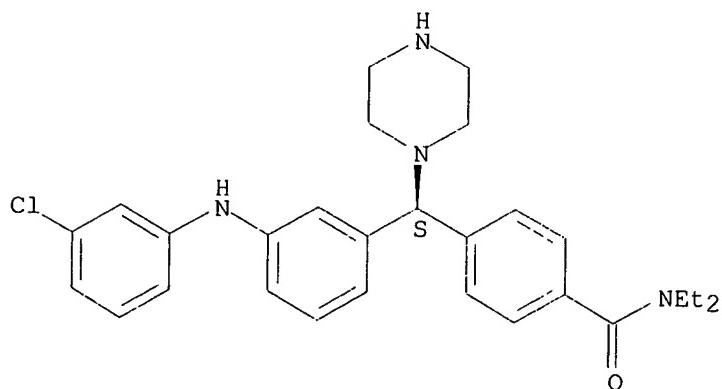
Absolute stereochemistry. Rotation (-).



RN 693259-19-7 HCPLUS

CN Benzamide, 4-[(S)-[3-[(3-chlorophenyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

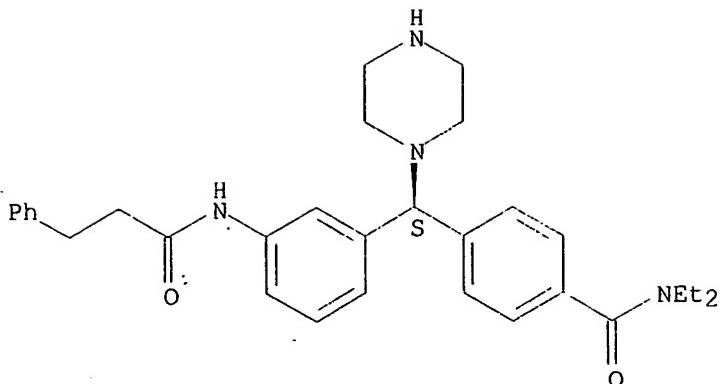
Absolute stereochemistry. Rotation (+).



RN 693259-20-0 HCPLUS

CN Benzenepropanamide, N-[3-[(S)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L11 ANSWER 5 OF 6 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:906172 HCPLUS
 DOCUMENT NUMBER: 138:4616
 TITLE: Preparation of 4-(phenyl-piperazinyl-methyl)-benzamides as δ opioid receptor agonists for the treatment of pain, anxiety or gastrointestinal disorders
 INVENTOR(S): Brown, William; Walpole, Christopher; Plobbeck, Niklas
 PATENT ASSIGNEE(S): AstraZeneca Ab, Swed.
 SOURCE: PCT Int. Appl., 40 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002094794	A1	20021128	WO 2002-SE956	20020516 <--
WO 2002094794	C1	20040422		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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EE 200300545	A	20040216	EE 2003-545	20020516 <--
EP 1395567	A1	20040310	EP 2002-733712	20020516 <--
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BG 108333	A	20041230	BG 2003-108333	20031107 <--
US 2004147526	A1	20040729	US 2003-477642	20031113 <--

Searched by Mary Jane Ruhl

Ext. 22524

10-

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REJECTS

PRIORITY APPLN. INFO.:

SE 2001-1772
SE 2001-3820
WO 2002-SE956A 20010518 <--
A 20011115 <--
W 20020516 <--OTHER SOURCE(S):
GI

CASREACT 138:4616; MARPAT 138:4616

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds. [I; R1 = (un)substituted Ph, pyridyl, thieryl, furanyl, imidazolyl, pyrrolyl, triazolyl, thiazolyl, and pyridyl N-oxide; R2 = Et, iso-Pr; R3 = H, F; R4 = OH, NH2, NHSO2R5; R5 = H, CF3, alkyl] and their salts, useful in therapy, in particular in the management of pain, anxiety and functional gastrointestinal disorders, were prepared and formulated. Thus, N-alkylation of the benzamide II (2-step synthesis given) with PhCH2Br followed by treatment of the intermediate with BBr3 in CH2Cl2 afforded 50% I.TFA [R1 = Ph; R2 = iso-Pr; R3 = F; R4 = OH]. The exemplified compds. I showed IC50 of 0.50-13 nM against δ receptor binding.

IT 477191-61-0P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of 4-(phenyl-piperazinyl-methyl)-benzamides as δ opioid receptor agonists for treating pain, anxiety or gastrointestinal disorders)

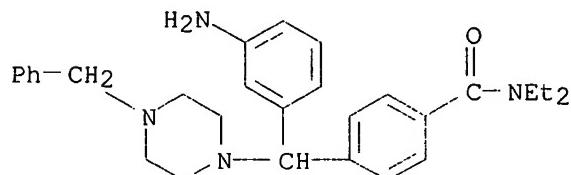
RN 477191-61-0 HCPLUS

CN Benzamide, 4-[(3-aminophenyl)[4-(phenylmethyl)-1-piperazinyl]methyl]-N,N-diethyl-, tris(trifluoroacetate) (9CI) (CA INDEX NAME)

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CRN 477191-60-9

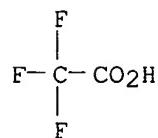
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CM 2

CRN 76-05-1

CMF C2 H F3 O2



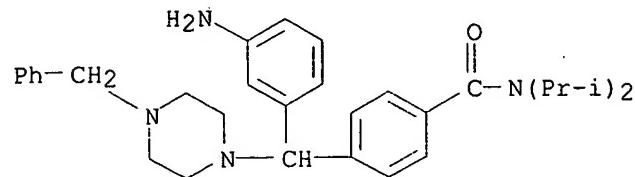
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 477191-58-5P 477191-59-6P 477191-60-9P
 477191-62-1P 477191-63-2P 477191-64-3P
 477191-65-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 4-(phenyl-piperazinyl-methyl)-benzamides as δ opioid receptor agonists for treating pain, anxiety or gastrointestinal disorders)

RN 477191-49-4 HCAPLUS

CN Benzamide, 4-[(3-aminophenyl)[4-(phenylmethyl)-1-piperazinyl]methyl]-N,N-bis(1-methylethyl)- (9CI) (CA INDEX NAME)



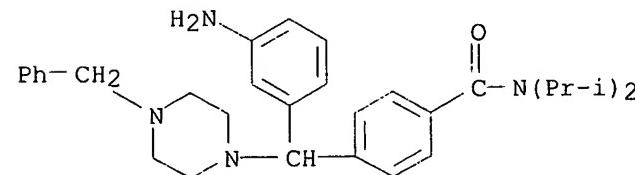
RN 477191-50-7 HCAPLUS

CN Benzamide, 4-[(3-aminophenyl)[4-(phenylmethyl)-1-piperazinyl]methyl]-N,N-bis(1-methylethyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 477191-49-4

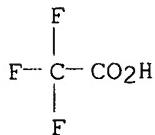
CMF C31 H40 N4 O



CM 2

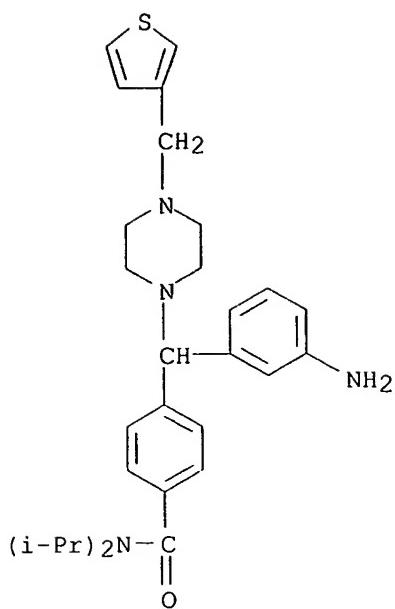
CRN 76-05-1

CMF C2 H F3 O2



RN 477191-51-8 HCAPLUS

CN Benzamide, 4-[(3-aminophenyl)[4-(3-thienylmethyl)-1-piperazinyl]methyl]-N,N-bis(1-methylethyl)- (9CI) (CA INDEX NAME)



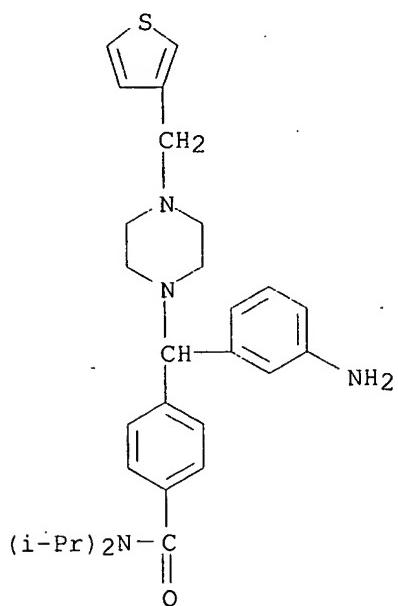
RN 477191-52-9 HCAPLUS

CN Benzamide, 4-[3-aminophenyl][4-(3-thienylmethyl)-1-piperazinyl]methyl]-N,N-bis(1-methylethyl)-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

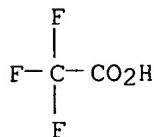
CM 1

CRN 477191-51-8

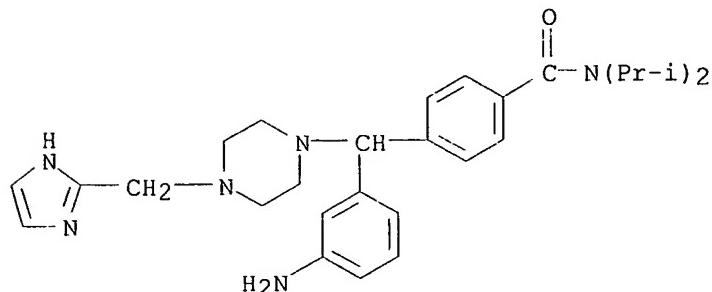
CMF C29 H38 N4 O S



CM 2

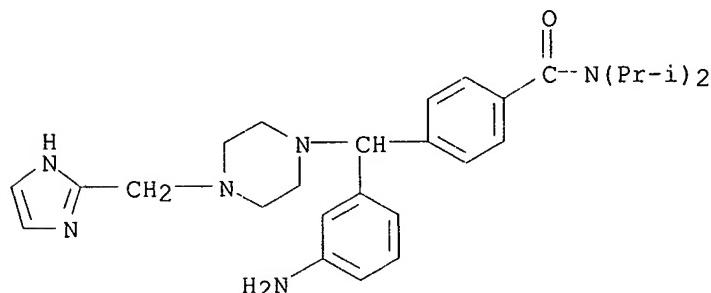
CRN 76-05-1
CMF C2 H F3 O2

RN 477191-53-0 HCPLUS
 CN Benzamide, 4-[(3-aminophenyl)[4-(1H-imidazol-2-ylmethyl)-1-piperazinyl]methyl]-N,N-bis(1-methylethyl)- (9CI) (CA INDEX NAME)



RN 477191-54-1 HCPLUS
 CN Benzamide, 4-[(3-aminophenyl)[4-(1H-imidazol-2-ylmethyl)-1-piperazinyl]methyl]-N,N-bis(1-methylethyl)-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

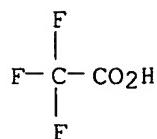
CM 1

CRN 477191-53-0
CMF C28 H38 N6 O

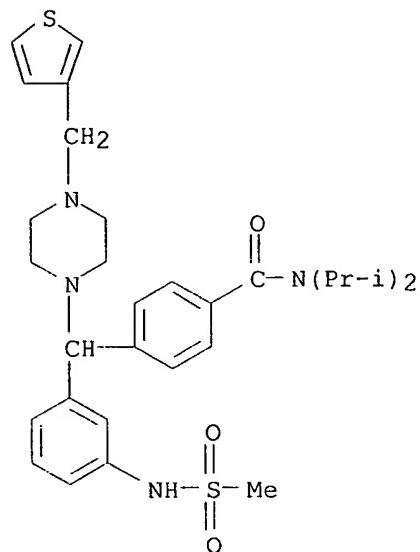
CM 2

CRN 76-05-1

CMF C2 H F3 O2



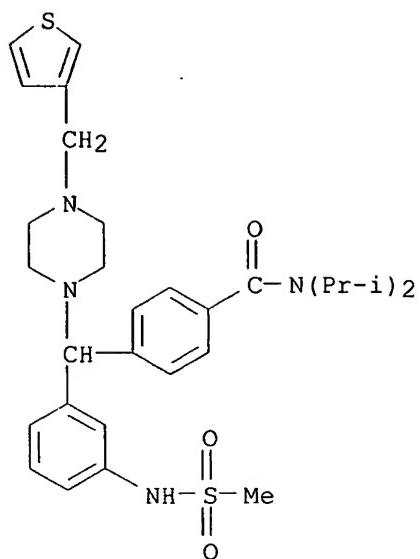
RN 477191-55-2 HCPLUS
 CN Benzamide, N,N-bis(1-methylethyl)-4-[[3-[(methylsulfonyl)amino]phenyl][4-(3-thienylmethyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RN 477191-56-3 HCPLUS
 CN Benzamide, N,N-bis(1-methylethyl)-4-[[3-[(methylsulfonyl)amino]phenyl][4-(3-thienylmethyl)-1-piperazinyl]methyl]-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

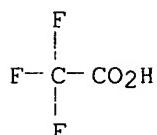
CRN 477191-55-2
 CMF C30 H40 N4 O3 S2



CM 2

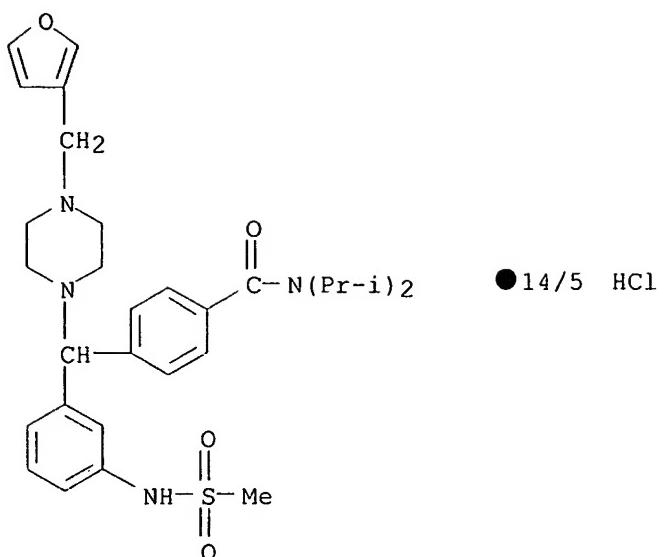
CRN 76-05-1

CMF C2 H F3 O2

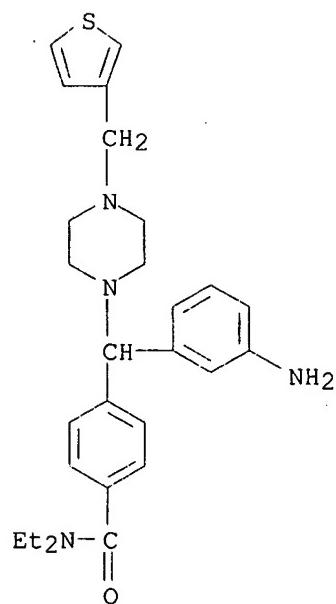


RN 477191-57-4 HCPLUS

CN Benzamide, 4-[[4-(3-furanylmethyl)-1-piperazinyl][3-[(methylsulfonyl)amino]phenyl]methyl]-N,N-bis(1-methylethyl)-, hydrochloride (5:14) (9CI) (CA INDEX NAME)



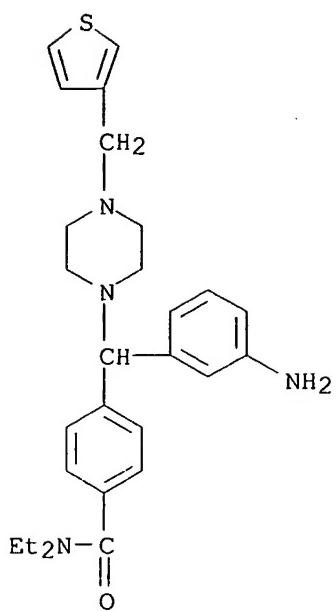
RN 477191-58-5 HCPLUS
 CN Benzamide, 4-[(3-aminophenyl)[4-(3-thienylmethyl)-1-piperazinyl]methyl]-
 N,N-diethyl- (9CI) (CA INDEX NAME)



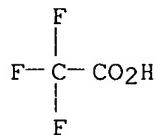
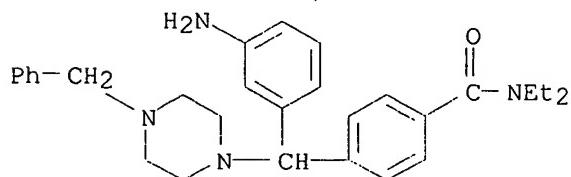
RN 477191-59-6 HCPLUS
 CN Benzamide, 4-[(3-aminophenyl)[4-(3-thienylmethyl)-1-piperazinyl]methyl]-
 N,N-diethyl-, tris(trifluoroacetate) (9CI) (CA INDEX NAME)

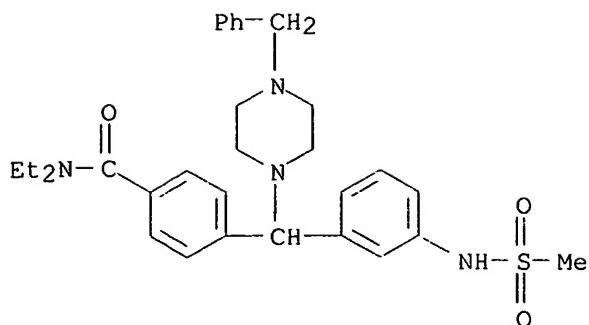
CM 1

CRN 477191-58-5
 CMF C27 H34 N4 O S



CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 477191-60-9 HCAPLUS
CN Benzamide, 4-[3-aminophenyl][4-(phenylmethyl)-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)RN 477191-62-1 HCAPLUS
CN Benzamide, N,N-diethyl-4-[{3-[(methylsulfonyl)amino]phenyl}[4-(phenylmethyl)-1-piperazinylmethyl]methyl]- (9CI) (CA INDEX NAME)



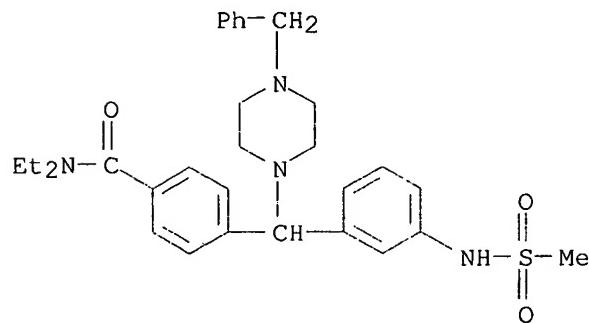
RN 477191-63-2 HCPLUS

CN Benzamide, N,N-diethyl-4-[(3-[(methylsulfonyl)amino]phenyl)[4-(phenylmethyl)-1-piperazinyl]methyl]-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 477191-62-1

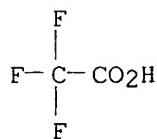
CMF C30 H38 N4 O3 S



CM 2

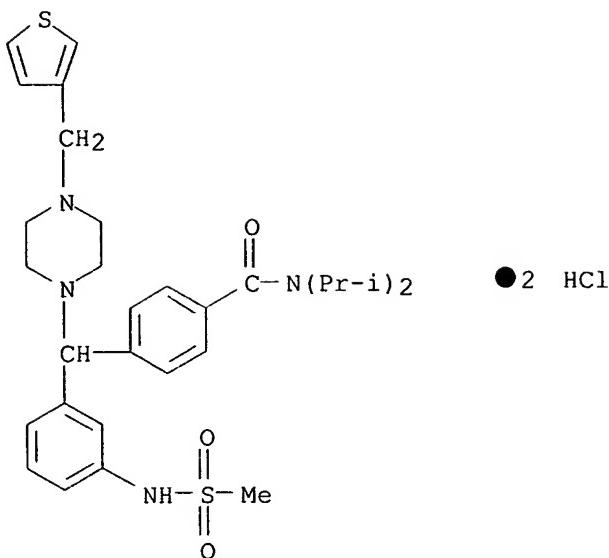
CRN 76-05-1

CMF C2 H F3 O2

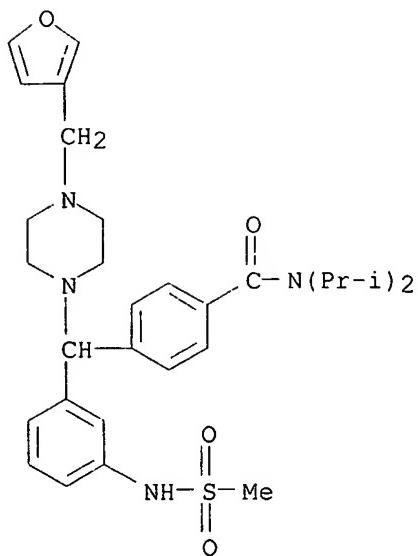


RN 477191-64-3 HCPLUS

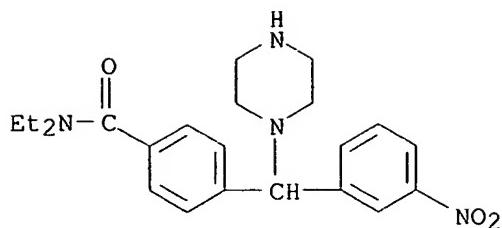
CN Benzamide, N,N-bis(1-methylethyl)-4-[(3-[(methylsulfonyl)amino]phenyl)[4-(3-thienylmethyl)-1-piperazinyl]methyl]-, dihydrochloride (9CI) (CA INDEX NAME)



RN 477191-65-4 HCPLUS
 CN Benzamide, 4-[4-(3-furanylmethyl)-1-piperazinyl][3-[(methylsulfonyl)amino]phenyl]methyl]-N,N-bis(1-methylethyl)- (9CI) (CA INDEX NAME)



IT 477191-80-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of 4-(phenyl-piperazinyl-methyl)-benzamides as δ opioid receptor agonists for treating pain, anxiety or gastrointestinal disorders)
 RN 477191-80-3 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(3-nitrophenyl)-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

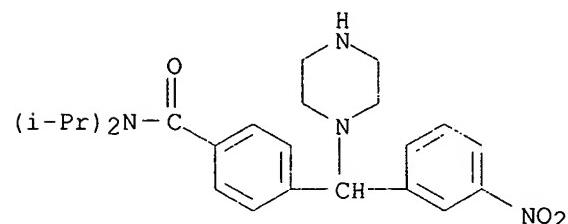


IT 477191-72-3P 477191-73-4P 477191-74-5P
477191-75-6P 477191-76-7P 477191-77-8P
477191-78-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 4-(phenyl-piperazinyl-methyl)-benzamides as δ opioid receptor agonists for treating pain, anxiety or gastrointestinal disorders)

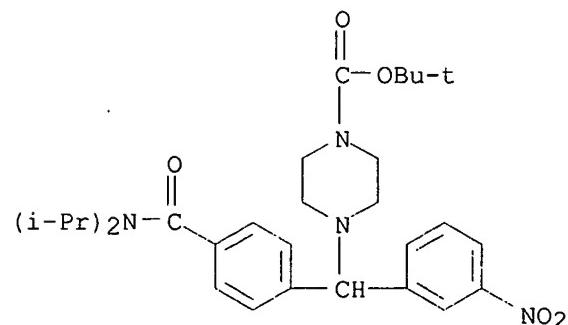
RN 477191-72-3 HCAPLUS

CN Benzamide, N,N-bis(1-methylethyl)-4-[(3-nitrophenyl)-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)



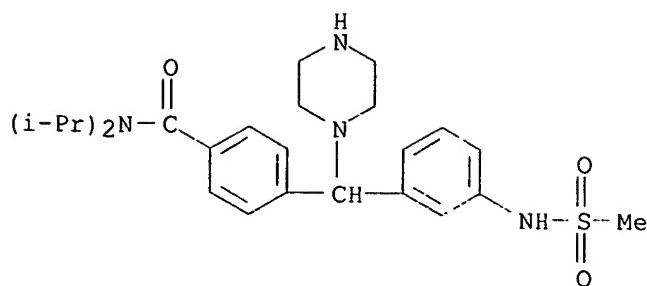
RN 477191-73-4 HCAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[4-[[bis(1-methylethyl)amino]carbonyl]phenyl](3-nitrophenyl)methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



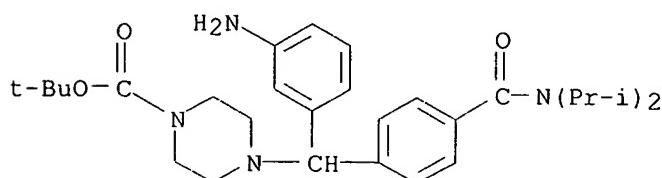
RN 477191-74-5 HCAPLUS

CN Benzamide, N,N-bis(1-methylethyl)-4-[[3-[(methylsulfonyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)



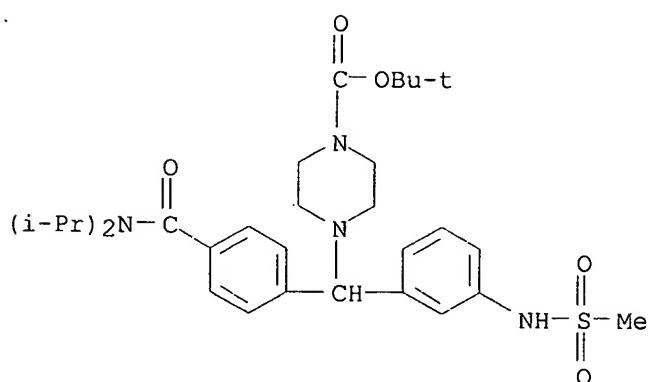
RN 477191-75-6 HCPLUS

CN 1-Piperazinecarboxylic acid, 4-[(3-aminophenyl){4-[(bis(1-methylethyl)amino)carbonyl]phenyl}methyl]-, 1,1-dimethylethyl ester (9CI)
(CA INDEX NAME)



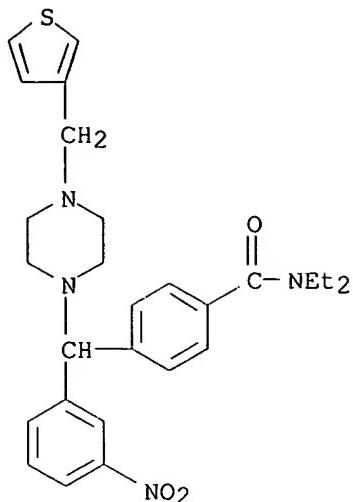
RN 477191-76-7 HCPLUS

CN 1-Piperazinecarboxylic acid, 4-[(4-[(bis(1-methylethyl)amino)carbonyl]phenyl)methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

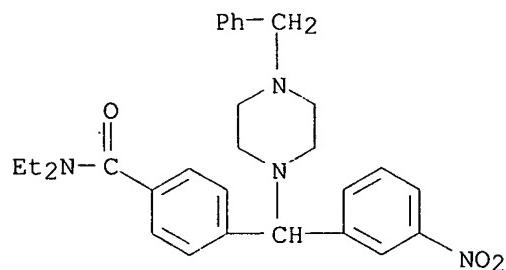


RN 477191-77-8 HCPLUS

CN Benzamide, N,N-diethyl-4-[(3-nitrophenyl){4-(3-thienylmethyl)-1-piperazinyl}methyl]- (9CI) (CA INDEX NAME)



RN 477191-78-9 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(3-nitrophenyl)[4-(phenylmethyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



*USED TO
REJECT
most APPS*



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1994:483367 HCAPLUS
 DOCUMENT NUMBER: 121:83367
 TITLE: Analgesic diarylmethylpiperazines and piperidines
 INVENTOR(S): Chang, Kwen Jen; Boswell, Grady Evan; Bubacz, Dulce Garrido; Collins, Mark Allan; Davis, Ann Oststot; Mcnutt, Robert Walton
 PATENT ASSIGNEE(S): Wellcome Foundation Ltd., UK
 SOURCE: PCT Int. Appl., 214 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 7
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9315062	A1	19930805	WO 1993-GB216	19930202 <--
W: AT, AU, BR, CA, CH, DE, ES, HU, JP, KP, LU, NL, NO, PL, RO, RU,				

SE, UA, US

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG

AU 9334573 A1 19930901 AU 1993-34573 19930202 <--

AU 675928 B2 19970227

ZA 9300717 A 19940802 ZA 1993-717 19930202 <--

JP 07503247 T2 19950406 JP 1993-513072 19930202 <--

JP 3109832 B2 20001120

EP 649414 A1 19950426 EP 1993-914513 19930202 <--

EP 649414 B1 20030416

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE

IL 104582 A1 19981030 IL 1993-104582 19930202 <--

AT 237597 E 20030515 AT 1993-914513 19930202 <--

PT 649414 T 20030930 PT 1993-914513 19930202 <--

ES 2197152 T3 20040101 ES 1993-914513 19930202 <--

US 5658908 A 19970819 US 1994-284445 19940803 <--

US 5854249 A 19981229 US 1997-864667 19970528 <--

US 2002052007 A1 20020502 US 2001-957903 20010921 <--

US 2005255151 A1 20051117 US 2005-184762 20050719 <--

GB 1992-2238 A 19920203 <--

WO 1993-GB216 A 19930202 <--

US 1994-284445 A3 19940803 <--

US 1996-658726 A2 19960605 <--

US 1997-887312 A3 19970703 <--

US 1999-352308 A2 19990712 <--

US 2001-974004 A3 20011009 <--

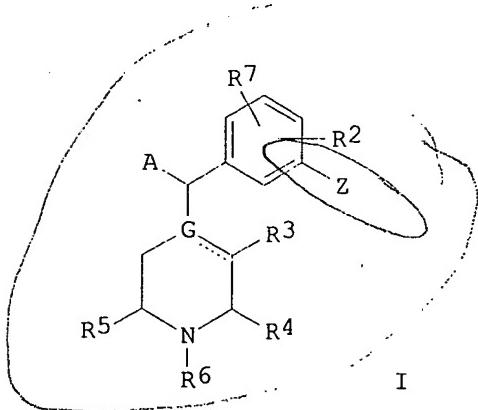
PRIORITY APPLN. INFO.:

US 5496875

OTHER SOURCE(S):

MARPAT 121:83367

GI



AB The title compds. [I; A = 5- or 6-membered carbocyclic or heterocyclic aromatic ring; G = C, N; R₂ = H, halogen, C1-4 alkyl; R₃-R₅ = H, Me (so long as the total number of M e groups is not greater than 2); R₆ = H, C1-6 alkyl, C3-6 cycloalkyl, aralkyl, etc.; R₇ = H, F; Z = HO, esters, hydroxymethyl, NH₂, carboximides, sulfonimides; R₁ = R₂ = R₇ ≠ F only when Z = OH and G = C when R₆ ≠ aralkyl], useful as mu and/or delta receptor opioid compds. for mediating analgesia, are prepared and I-containing formulations presented. Thus, (±)-4-[(α-R)-α-[(2S,5R)]-4-allyl-2,5-dimethyl-1-piperazinyl-3-hydroxybenzyl]-N,N-diethylbenzamide, prepared from 3-bromophenol in a multi-step reaction, demonstrated 50% inhibitory concentration

against rat brain delta receptors at 1.8 nM and 50% Mu receptor inhibitory concentration of 15 nM.

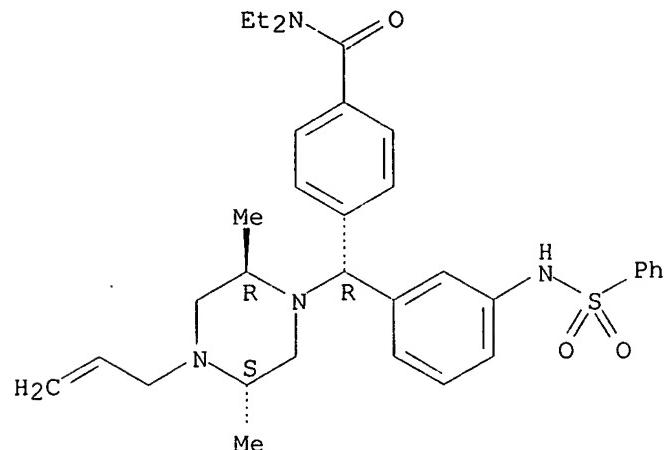
IT 155766-20-4P 155766-21-5P 155773-61-8P
155806-56-7P 155893-51-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (preparation and analgesic activity of)

RN 155766-20-4 HCPLUS

CN Benzamide, 4-[(2,5-dimethyl-4-(2-propenyl)-1-piperazinyl){3-[(phenylsulfonyl)amino]phenyl}methyl]-N,N-diethyl-, dihydrochloride,
 [1(R*),2 α ,5 β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

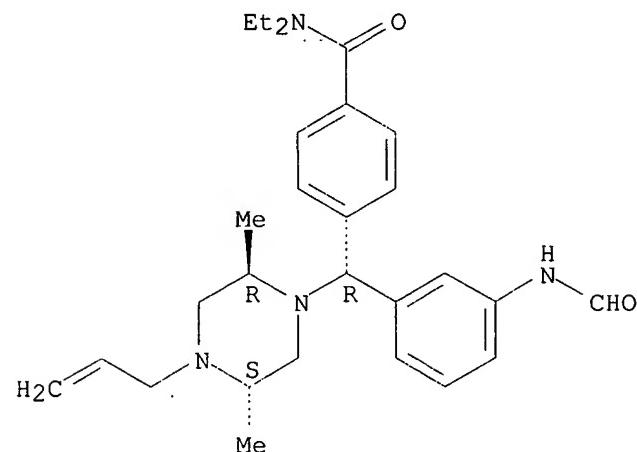


● 2 HCl

RN 155766-21-5 HCPLUS

CN Benzamide, 4-[(2,5-dimethyl-4-(2-propenyl)-1-piperazinyl){3-(formylamino)phenyl}methyl]-N,N-diethyl-, [1(R*),2 α ,5 β]- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.

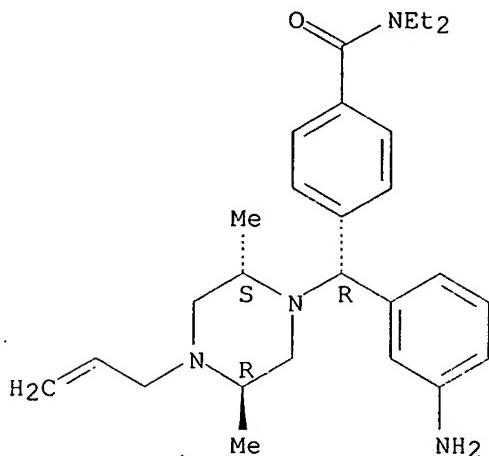


RN 155773-61-8 HCPLUS

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-

piperazinyl]methyl]-N,N-diethyl-, monohydrochloride,
[1(S*),2 α ,5 β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

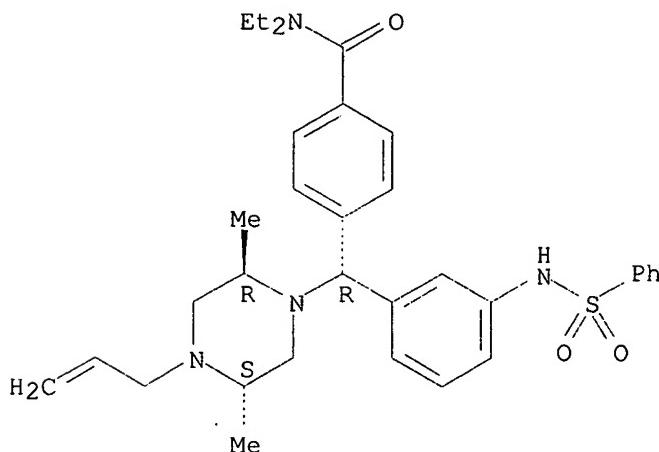


● HCl

RN 155806-56-7 HCPLUS

CN Benzamide, 4-[[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl][3-[(phenylsulfonyl)amino]phenyl]methyl]-N,N-diethyl-, [1(R*),2 α ,5 β]- (9CI) (CA INDEX NAME)

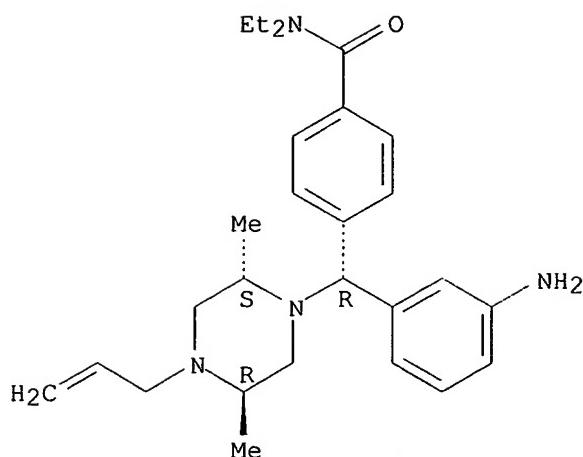
Relative stereochemistry.



RN 155893-51-9 HCPLUS

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, [1(S*),2 α ,5 β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



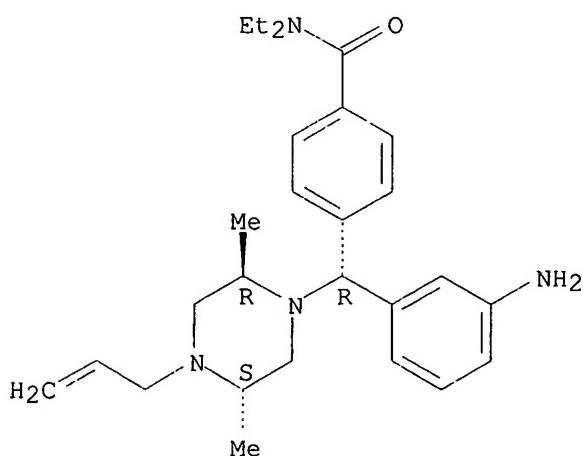
IT 155773-60-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and analgesic activity of, reaction of)

RN 155773-60-7 HCAPLUS

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



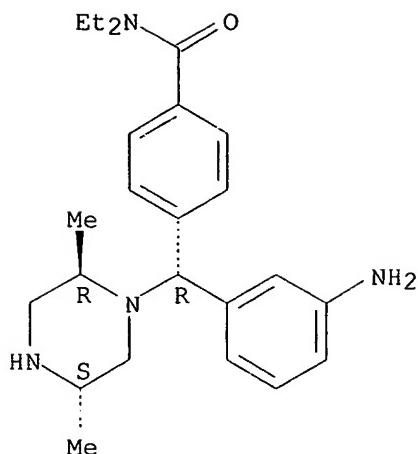
IT 155893-49-5P 155893-50-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, in preparation of analgesics)

RN 155893-49-5 HCAPLUS

CN Benzamide, 4-[(3-aminophenyl)(2,5-dimethyl-1-piperazinyl)methyl]-N,N-diethyl-, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

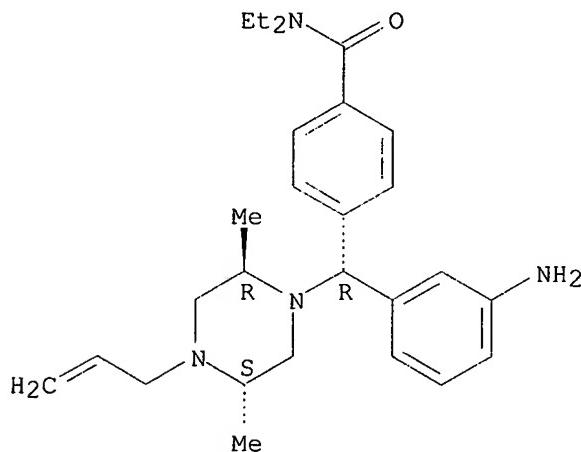
Relative stereochemistry.



RN 155893-50-8 HCAPLUS

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, monohydrochloride, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

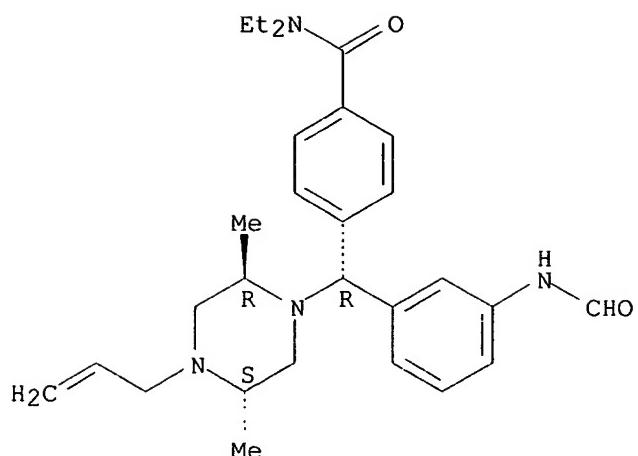
IT 155836-61-6

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of analgesics)

RN 155836-61-6 HCAPLUS

CN Benzamide, 4-[[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl][3-(formylamino)phenyl]methyl]-N,N-diethyl-, monohydrochloride, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

=> d ibib abs hitstr 112 1-10

L12 ANSWER 1 OF 10 USPATFULL on STN
 ACCESSION NUMBER: 2006:34795 USPATFULL
 TITLE: Diarylmethyl piperazine derivatives, preparations thereof and uses thereof
 INVENTOR(S): Brown, William, Saint Laurent, CANADA
 Griffin, Andrew, Saint Laurent, CANADA
 Hudzik, Thomas, Wilmington, DE, UNITED STATES
 Maciag, Carla, Wilmington, DE, UNITED STATES
 Smagin, Gennady, Wilmington, DE, UNITED STATES
 Walpole, Christopher, Saint Laurent, CANADA
 PATENT ASSIGNEE(S): AstraZeneca AB, Sodertalje, SWEDEN (non-U.S. corporation)

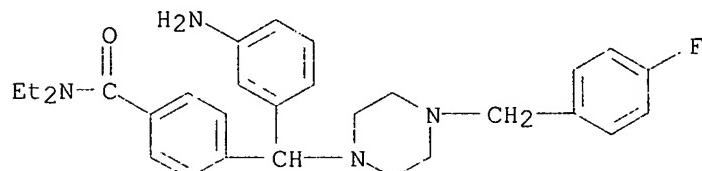
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006030569	A1	20060209
APPLICATION INFO.:	US 2005-243623	A1	20051005 (11)
RELATED APPLN. INFO.:	Continuation of Ser. No. WO 2005-SE1186, filed on 27 Jul 2005, UNKNOWN		

	NUMBER	DATE	
PRIORITY INFORMATION:	SE 2004-1968	20040802	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	ASTRA ZENECA PHARMACEUTICALS LP, GLOBAL INTELLECTUAL PROPERTY, 1800 CONCORD PIKE, WILMINGTON, DE, 19850-5437, US		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1196		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

AB Compounds of general formula: ##STR1## as well as salts, enantiomers thereof and pharmaceutical compositions including the compounds are prepared. They are useful in therapy, in particular in the management of pain, depression and anxiety.

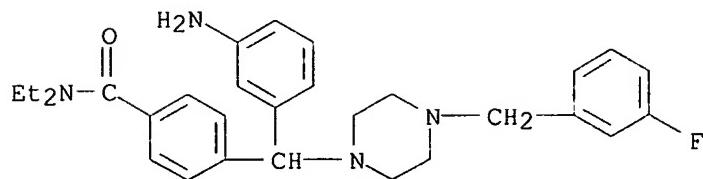
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 875647-78-2P 875647-79-3P 875647-80-6P
 875647-81-7P 875647-82-8P 875647-83-9P
 875647-84-0P
 (claimed compound; preparation of benzyl diarylmethyl piperazines as δ -opioid agonists)
 RN 875647-78-2 USPATFULL
 CN Benzamide, 4-[(3-aminophenyl)[4-[(4-fluorophenyl)methyl]-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)



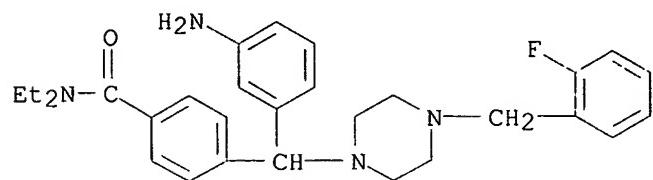
RN 875647-79-3 USPATFULL
 CN Benzamide, 4-[(3-aminophenyl)[4-[(3-fluorophenyl)methyl]-1-

piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)



RN 875647-80-6 USPATFULL

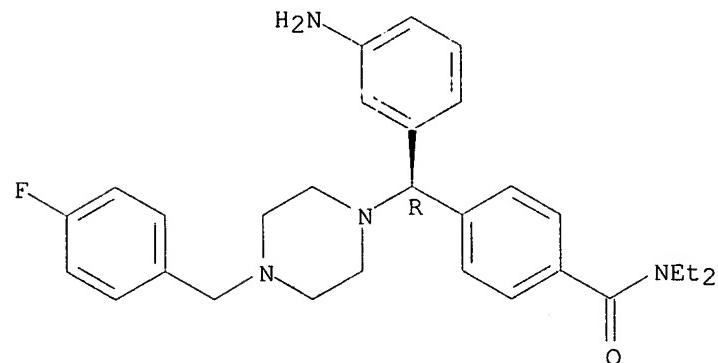
CN Benzamide, 4-[{(3-aminophenyl)methyl]-1-[{4-[(2-fluorophenyl)methyl]piperazinyl}methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)



RN 875647-81-7 USPATFULL

CN Benzamide, 4-[{(R)-(3-aminophenyl)methyl]-1-[{4-[(4-fluorophenyl)methyl]piperazinyl}methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

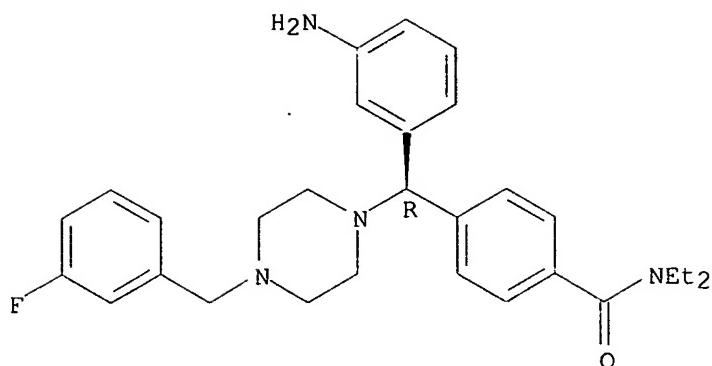
Absolute stereochemistry.



RN 875647-82-8 USPATFULL

CN Benzamide, 4-[{(R)-(3-aminophenyl)methyl]-1-[{4-[(3-fluorophenyl)methyl]piperazinyl}methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

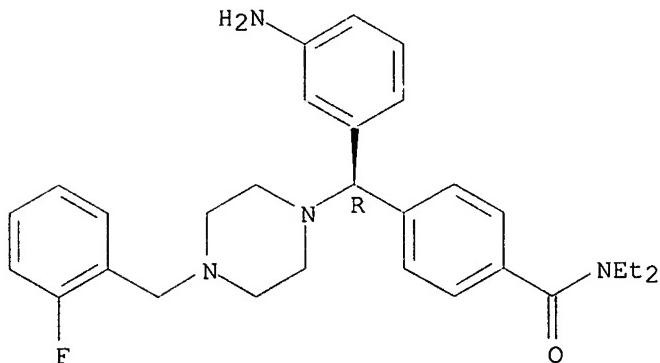
Absolute stereochemistry.



RN 875647-83-9 USPATFULL

CN Benzamide, 4-[(R)-(3-aminophenyl)[4-[(2-fluorophenyl)methyl]-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

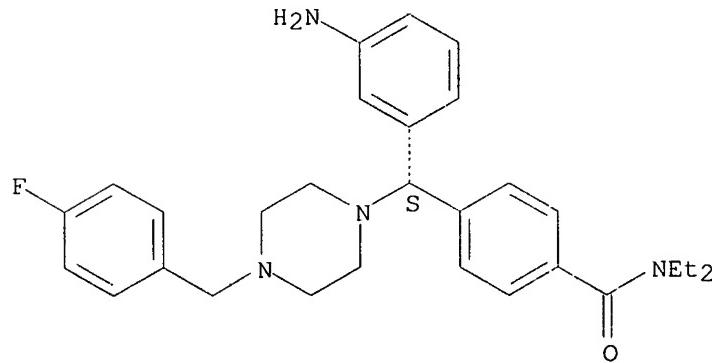
Absolute stereochemistry.



RN 875647-84-0 USPATFULL

CN Benzamide, 4-[(S)-(3-aminophenyl)[4-[(4-fluorophenyl)methyl]-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 875647-86-2P 875647-87-3P 875647-88-4P

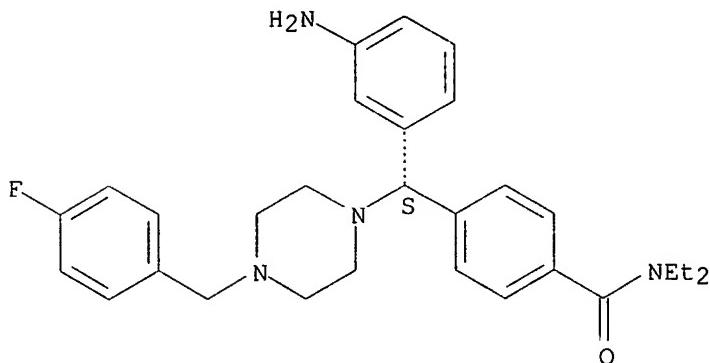
875647-89-5P

(preparation of benzyl diarylmethyl piperazines as δ -opioid agonists)

RN 875647-86-2 USPATFULL

CN Benzamide, 4-[(S)-(3-aminophenyl)[4-[(4-fluorophenyl)methyl]-1-piperazinyl]methyl]-N,N-diethyl-, hydrochloride (10:41) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● 41/10 HCl

RN 875647-87-3 USPATFULL

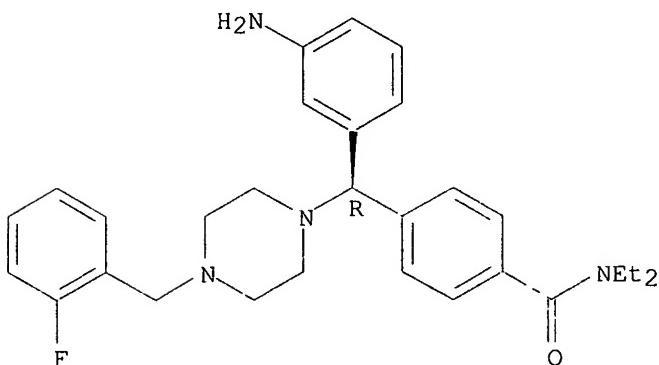
CN Benzamide, 4-[(R)-(3-aminophenyl)[4-[(2-fluorophenyl)methyl]-1-piperazinyl]methyl]-N,N-diethyl-, trifluoroacetate (5:14) (9CI) (CA INDEX NAME)

CM 1

CRN 875647-83-9

CMF C29 H35 F N4 O

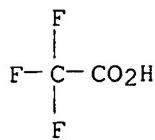
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 875647-88-4 USPATFULL

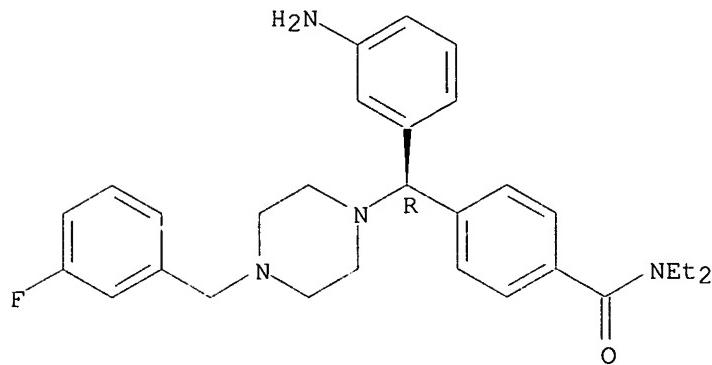
CN Benzamide, 4-[(R)-(3-aminophenyl)[4-[(3-fluorophenyl)methyl]-1-piperazinyl]methyl]-N,N-diethyl-, trifluoroacetate (10:27) (9CI) (CA INDEX NAME)

CM 1

CRN 875647-82-8

CMF C29 H35 F N4 O

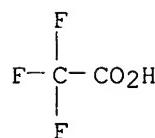
Absolute stereochemistry.



CM 2

CRN 76-05-1

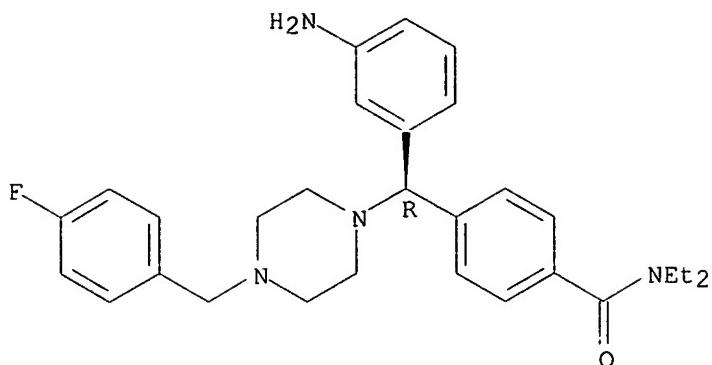
CMF C2 H F3 O2



RN 875647-89-5 USPATFULL

CN Benzamide, 4-[(R)-(3-aminophenyl)[4-[(4-fluorophenyl)methyl]-1-piperazinyl]methyl]-N,N-diethyl-, hydrochloride (10:47) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● 47/10 HCl

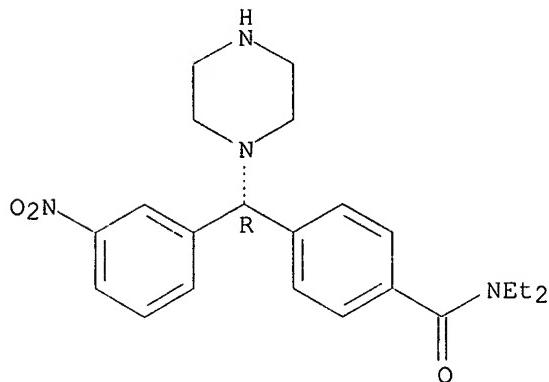
IT 691877-63-1P 875647-85-1P

(preparation of benzyl diarylmethyl piperazines as δ -opioid agonists)

RN 691877-63-1 USPATFULL

CN Benzamide, N,N-diethyl-4-[(R)-(3-nitrophenyl)-1-piperazinylmethyl]- (9CI)
(CA INDEX NAME)

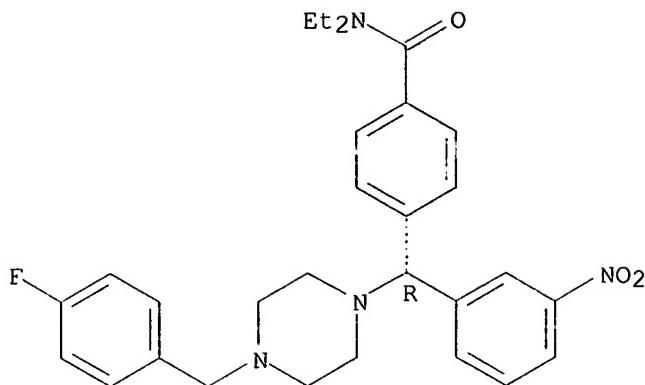
Absolute stereochemistry. Rotation (-).



RN 875647-85-1 USPATFULL

CN Benzamide, N,N-diethyl-4-[(R)-[4-[(4-fluorophenyl)methyl]-1-piperazinyl](3-nitrophenyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L12 ANSWER 2 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2005:292605 USPATFULL

TITLE: Compositions and methods for reducing respiratory depression and attendant side effects of mu opioid compounds

INVENTOR(S): Chang, Kwen-Jen, Chapel Hill, NC, UNITED STATES
 McNutt, Robert W. JR., Durham, NC, UNITED STATES
 Pettit, Hugh O., Cary, NC, UNITED STATES
 Bishop, Michael J., Durham, NC, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005255151	A1	20051117
APPLICATION INFO.:	US 2005-184762	A1	20050719 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 2001-974004, filed on 9 Oct 2001, GRANTED, Pat. No. US 6919350 Division of Ser. No. US 1999-352308, filed on 12 Jul 1999, GRANTED, Pat. No. US 6300332 Division of Ser. No. US 1997-887312, filed on 3 Jul 1997, GRANTED, Pat. No. US 5985880 Continuation-in-part of Ser. No. US 1996-658726, filed on 5 Jun 1996, GRANTED, Pat. No. US 5807858		

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1993-GB216	19930202
	GB 1992-2238	19920203
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	INTELLECTUAL PROPERTY / TECHNOLOGY LAW, PO BOX 14329, RESEARCH TRIANGLE PARK, NC, 27709, US	

NUMBER OF CLAIMS: 3
 EXEMPLARY CLAIM: 1
 NUMBER OF DRAWINGS: 2 Drawing Page(s)
 LINE COUNT: 2121

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of reducing, treating or preventing drug-mediated respiratory depression, muscle rigidity, or nausea/vomiting in an animal, incident to the administration to said animal of a mixed delta/mu opioid agonist or a respiratory depression-mediating drug, comprising administering to the animal receiving said drug an effective amount of a delta receptor agonist compound. Preferred examples of such delta receptor agonist compound include diarylmethyl piperazine compounds and diarylmethyl

piperidine compounds, and pharmaceutical compositions thereof, having utility in medical therapy for reducing respiratory depression associated with certain analgesics, such as mu opiates.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 155766-20-4P 155766-21-5P 155773-61-8P

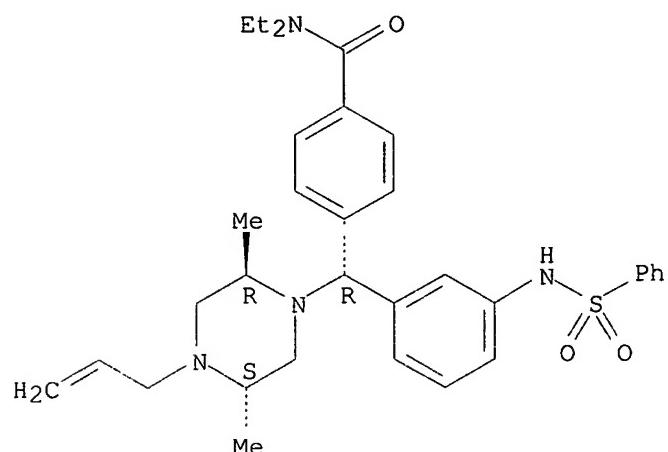
155806-56-7P 155893-51-9P

(preparation and analgesic activity of)

RN 155766-20-4 USPATFULL

CN Benzamide, 4-[[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl][3-[(phenylsulfonyl)amino]phenyl]methyl]-N,N-diethyl-, dihydrochloride, [1(R*),2 α ,5 β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

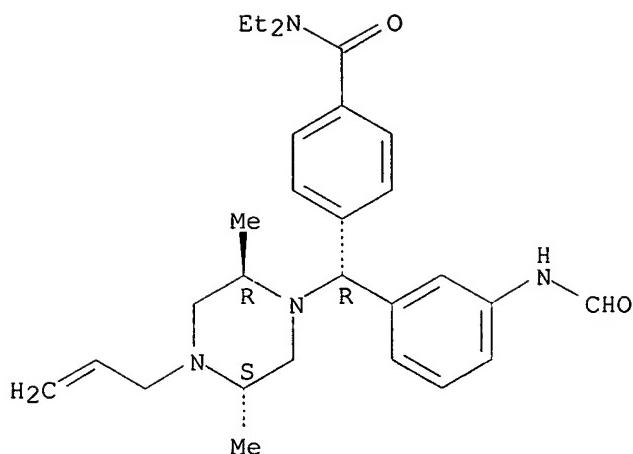


●2 HCl

RN 155766-21-5 USPATFULL

CN Benzamide, 4-[[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl][3-(formylamino)phenyl]methyl]-N,N-diethyl-, [1(R*),2 α ,5 β]- (9CI) (CA INDEX NAME)

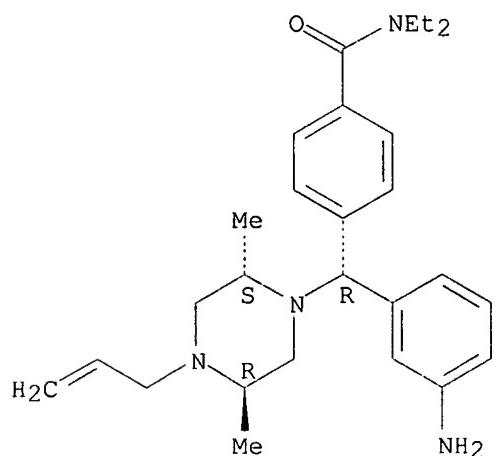
Relative stereochemistry.



RN 155773-61-8 USPATFULL

CN Benzamide, 4-[(3-aminophenyl){2,5-dimethyl-4-(2-propenyl)-1-piperazinyl}methyl]-N,N-diethyl-, monohydrochloride,
[1(S*),2 α ,5 β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

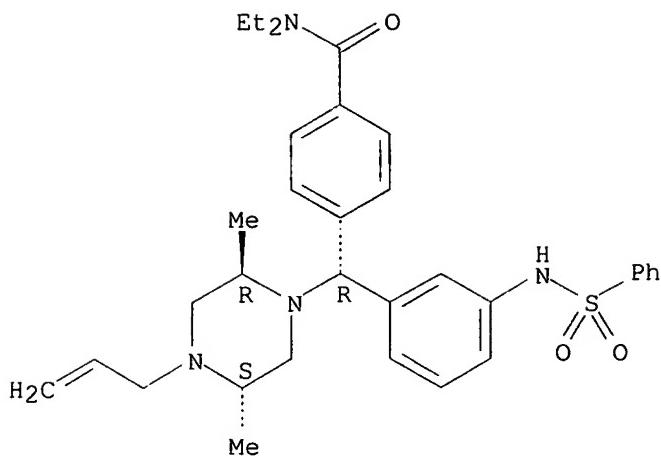


● HCl

RN 155806-56-7 USPATFULL

CN Benzamide, 4-[[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl][3-[(phenylsulfonyl)amino]phenyl]methyl]-N,N-diethyl-,
[1(R*),2 α ,5 β]- (9CI) (CA INDEX NAME)

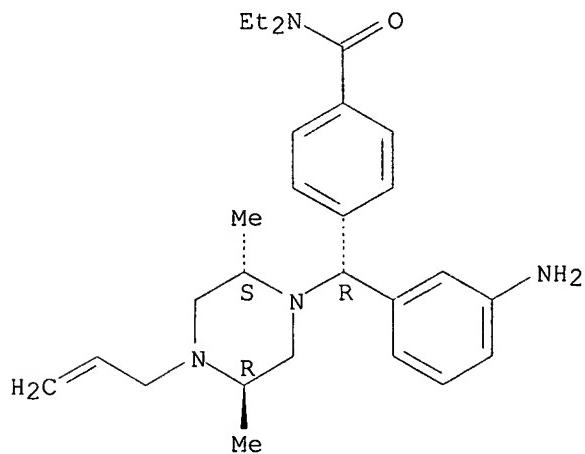
Relative stereochemistry.



RN 155893-51-9 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, [1(S*),2 α ,5 β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



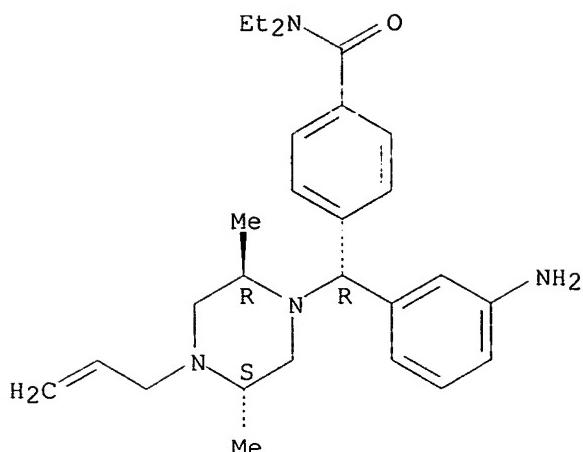
IT 155773-60-7P

(preparation and analgesic activity of, reaction of)

RN 155773-60-7 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, [1(R*),2 α ,5 β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



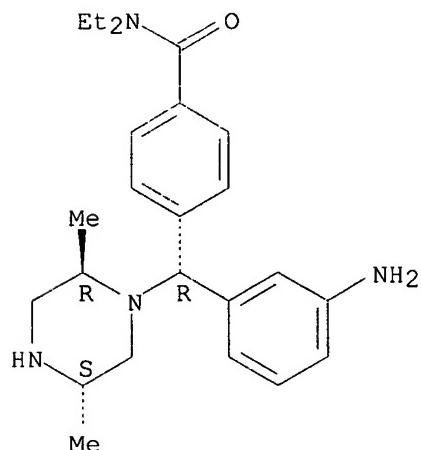
IT 155893-49-5P 155893-50-8P

(preparation and reaction of, in preparation of analgesics)

RN 155893-49-5 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)(2,5-dimethyl-1-piperazinyl)methyl]-N,N-diethyl-, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

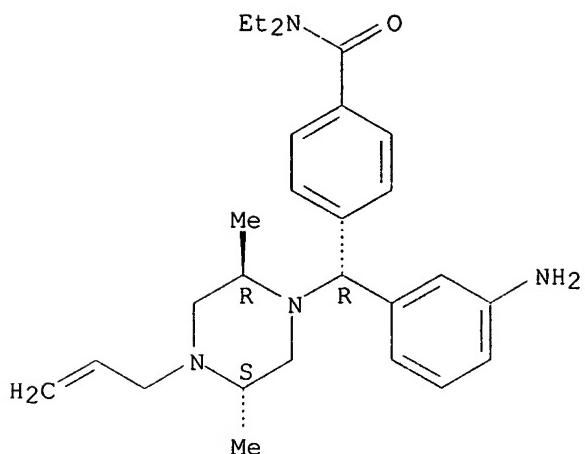
Relative stereochemistry.



RN 155893-50-8 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, monohydrochloride, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

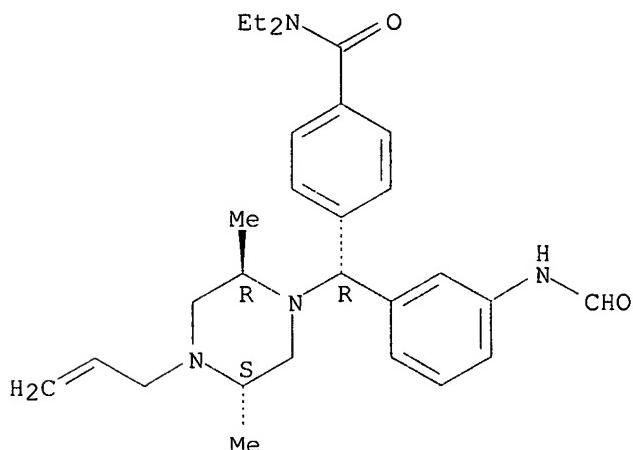
IT 155836-61-6

(reaction of, in preparation of analgesics)

RN 155836-61-6 USPATFULL

CN Benzamide, 4-[{2,5-dimethyl-4-(2-propenyl)-1-piperazinyl}[3-(formylamino)phenyl]methyl]-N,N-diethyl-, monohydrochloride,
[1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

L12 ANSWER 3 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2004:190753 USPATFULL

TITLE: 4-(Phenyl-piperazinyl-methyl) benzamide derivatives and
their use for the treatment of pain anxiety or
gastrointestinal disorders

INVENTOR(S):
 Brown, William, Montreal, CANADA
 Walpole, Christopher, Montreal, CANADA
 Plobeck, Niklas, Sodertalje, SWEDEN

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004147526	A1	20040729	<--
APPLICATION INFO.:	US 2003-477642	A1	20031113 (10)	
	WO 2002-SE956		20020516	

	NUMBER	DATE	
PRIORITY INFORMATION:	SE 2001-1772	20010518	<--
	SE 2001-3820	20011115	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	ASTRA ZENECA PHARMACEUTICALS LP, GLOBAL INTELLECTUAL PROPERTY, 1800 CONCORD PIKE, WILMINGTON, DE, 19850-5437		
NUMBER OF CLAIMS:	15		
EXEMPLARY CLAIM:	1		
LINE COUNT:	871		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds of general formula I R.^{sup.1} is selected from any one of phenyl, pyridinyl, thienyl, furanyl, imidazolyl, pyrrolyl, triazolyl, thiazolyl, and pyridine N-oxide; R.^{sup.2} is independently selected from ethyl and isopropyl; R.^{sup.3} is independently selected from hydrogen and fluoro; R.^{sup.4} is independently selected from --OH, --NH₂ and --NHSO₂R.^{sup.5}; and R.^{sup.5} is independently selected from hydrogen, --CF₃ and C₁₋₆alkyl, or salts thereof or separate enantiomers and salts thereof; where each R.^{sup.1} heteroaromatic ring may optionally and independently be further substituted by 1, 2 or 3 substituents selected from straight and branched C₁₋₆alkyl, NO₂, CF₃, C₁₋₆alkoxy, chloro, fluoro, bromo, and iodo. The substitutions on the heteroaromatic ring may take place in any position on said ring systems; are disclosed and claimed in the present application, as well as separate enantiomers of the compounds and salts and pharmaceutical compositions comprising the novel compounds and their use in therapy, in particular in the management of pain, anxiety and functional gastrointestinal disorders.

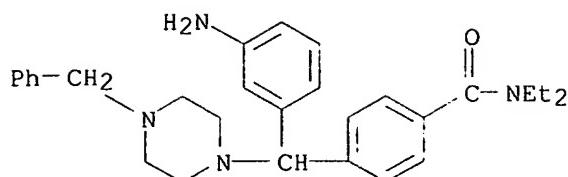
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 477191-61-0P
 (preparation of 4-(phenyl-piperazinyl-methyl)-benzamides as δ opioid receptor agonists for treating pain, anxiety or gastrointestinal disorders)

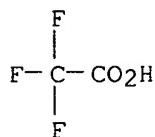
RN 477191-61-0 USPATFULL
 CN Benzamide, 4-[(3-aminophenyl)[4-(phenylmethyl)-1-piperazinyl]methyl]-N,N-diethyl-, tris(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 477191-60-9
 CMF C29 H36 N4 O



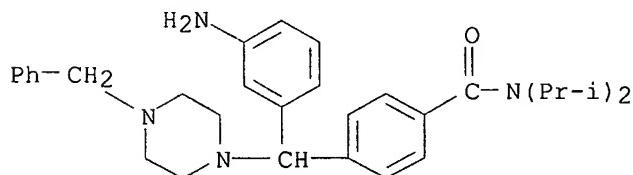
CM 2

CRN 76-05-1
CMF C2 H F3 O2

IT 477191-49-4P 477191-50-7P 477191-51-8P
 477191-52-9P 477191-53-0P 477191-54-1P
 477191-55-2P 477191-56-3P 477191-57-4P
 477191-58-5P 477191-59-6P 477191-60-9P
 477191-62-1P 477191-63-2P 477191-64-3P
 477191-65-4P
 (preparation of 4-(phenyl-piperazinyl-methyl)-benzamides as δ opioid receptor agonists for treating pain, anxiety or gastrointestinal disorders)

RN 477191-49-4 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[4-(phenylmethyl)-1-piperazinyl]methyl]-N,N-bis(1-methylethyl)- (9CI) (CA INDEX NAME)

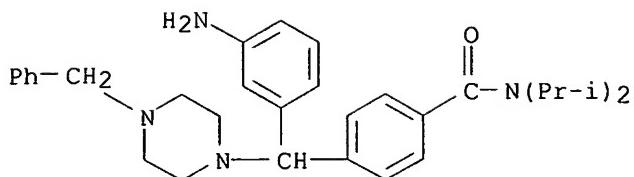


RN 477191-50-7 USPATFULL

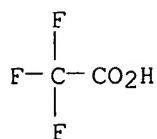
CN Benzamide, 4-[(3-aminophenyl)[4-(phenylmethyl)-1-piperazinyl]methyl]-N,N-bis(1-methylethyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

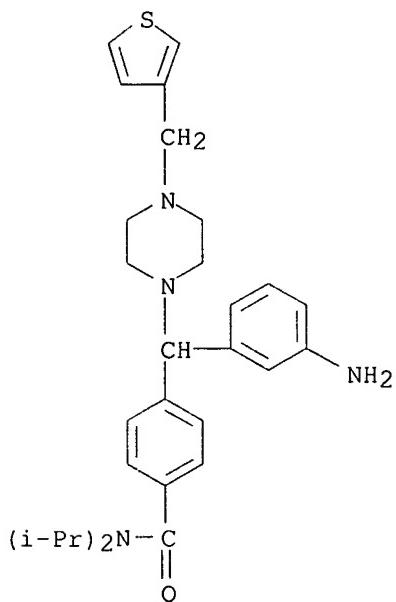
CRN 477191-49-4
CMF C31 H40 N4 O



CM 2

CRN 76-05-1
CMF C2 H F3 O2

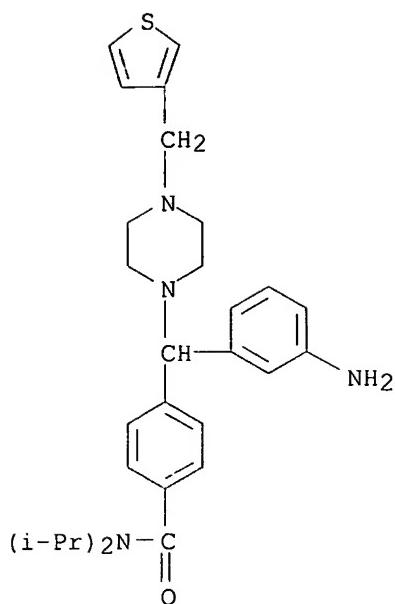
RN 477191-51-8 USPATFULL
 CN Benzamide, 4-[(3-aminophenyl)[4-(3-thienylmethyl)-1-piperazinyl]methyl]-
 N,N-bis(1-methylethyl)- (9CI) (CA INDEX NAME)



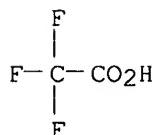
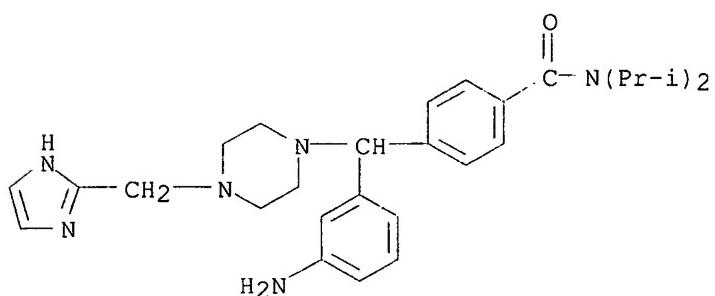
RN 477191-52-9 USPATFULL
 CN Benzamide, 4-[(3-aminophenyl)[4-(3-thienylmethyl)-1-piperazinyl]methyl]-
 N,N-bis(1-methylethyl)-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 477191-51-8
CMF C29 H38 N4 O S



CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 477191-53-0 USPATFULL
CN Benzamide, 4-[(3-aminophenyl)[4-(1H-imidazol-2-ylmethyl)-1-piperazinyl]methyl]-N,N-bis(1-methylethyl)- (9CI) (CA INDEX NAME)RN 477191-54-1 USPATFULL
CN Benzamide, 4-[(3-aminophenyl)[4-(1H-imidazol-2-ylmethyl)-1-

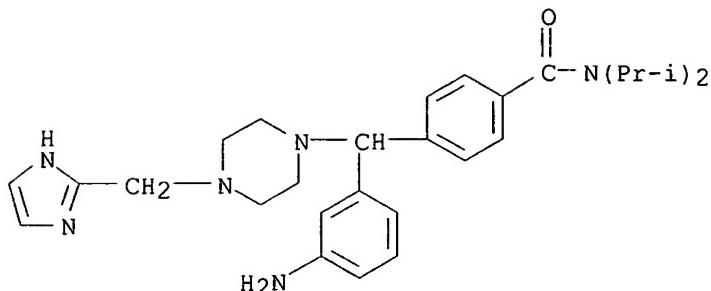
Moore 10/533, 764

21/03/2006

piperazinyl]methyl]-N,N-bis(1-methylethyl)-, bis(trifluoroacetate) (9CI)
(CA INDEX NAME)

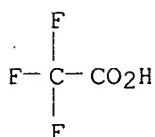
CM 1

CRN 477191-53-0
CMF C28 H38 N6 O



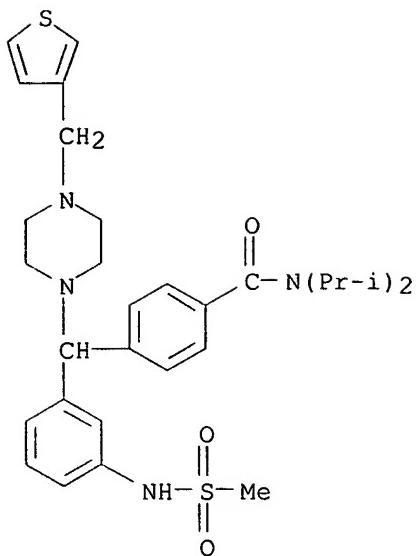
CM 2

CRN 76-05-1
CMF C2 H F3 O2



RN 477191-55-2 USPATFULL

CN Benzamide, N,N-bis(1-methylethyl)-4-[[3-[(methylsulfonyl)amino]phenyl][4-(3-thienylmethyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



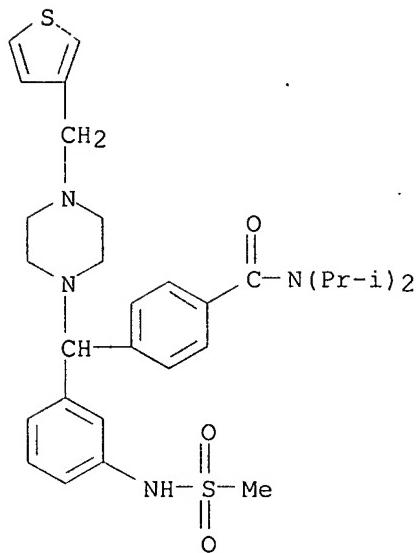
RN 477191-56-3 USPATFULL

CN Benzamide, N,N-bis(1-methylethyl)-4-[[3-[(methylsulfonyl)amino]phenyl][4-(3-thienylmethyl)-1-piperazinyl]methyl]-, bis(trifluoroacetate) (9CI)
(CA INDEX NAME)

CM 1

CRN 477191-55-2

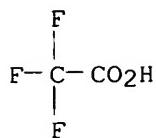
CMF C30 H40 N4 O3 S2



CM 2

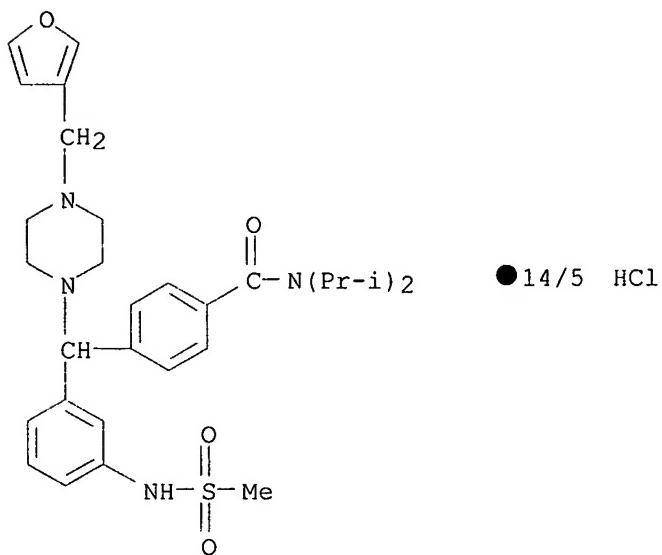
CRN 76-05-1

CMF C2 H F3 O2



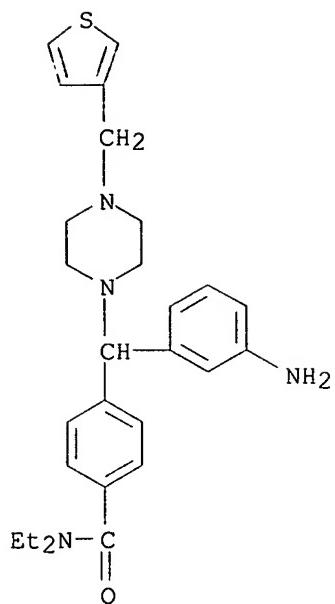
RN 477191-57-4 USPATFULL

CN Benzamide, 4-[{4-(3-furanyl methyl)-1-piperazinyl}[3-[(methylsulfonyl)amino]phenyl]methyl]-N,N-bis(1-methylethyl)-, hydrochloride (5:14) (9CI) (CA INDEX NAME)



RN 477191-58-5 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[4-(3-thienylmethyl)-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)



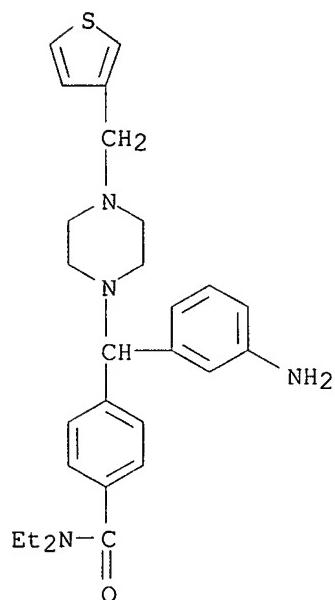
RN 477191-59-6 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[4-(3-thienylmethyl)-1-piperazinyl]methyl]-N,N-diethyl-, tris(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

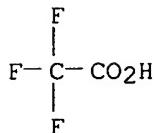
CRN 477191-58-5

CMF C27 H34 N4 O S

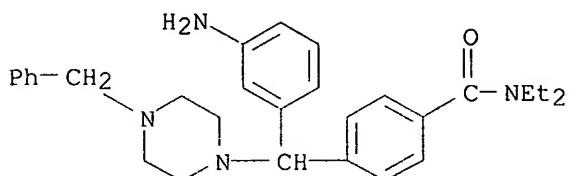


CM 2

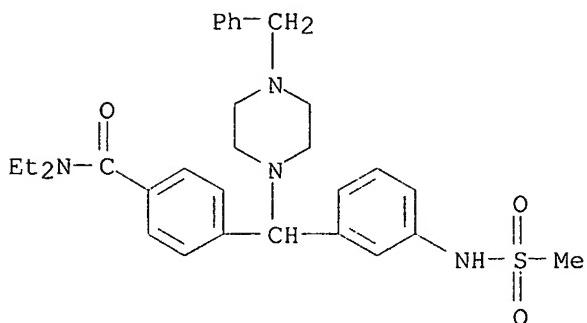
CRN 76-05-1
 CMF C2 H F3 O2



RN 477191-60-9 USPATFULL
 CN Benzamide, 4-[4-(3-aminophenyl)-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)



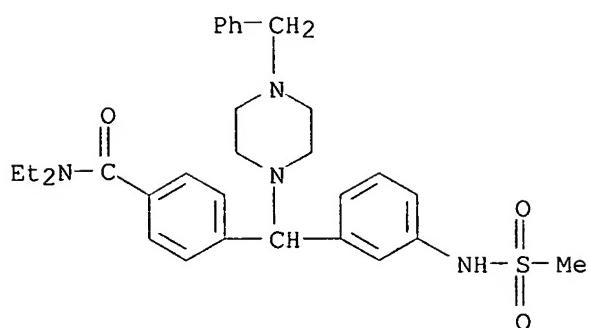
RN 477191-62-1 USPATFULL
 CN Benzamide, N,N-diethyl-4-[3-[(methylsulfonyl)amino]phenyl][4-(phenylmethyl)-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)



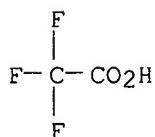
RN 477191-63-2 USPATFULL
 CN Benzamide, N,N-diethyl-4-[3-[(methylsulfonyl)amino]phenyl][4-(phenylmethyl)-1-piperazinylmethyl]-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

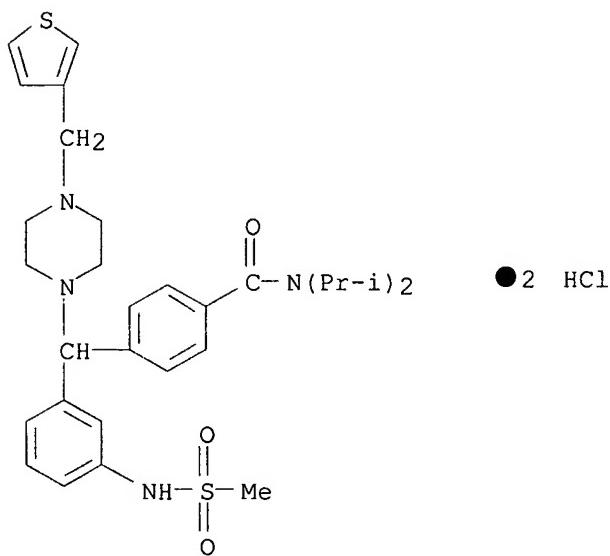
CRN 477191-62-1
 CMF C30 H38 N4 O3 S



CM 2

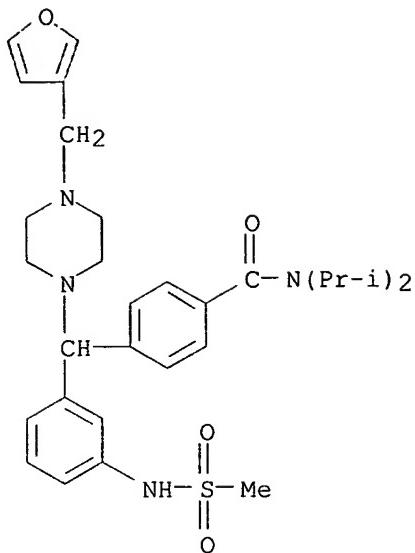
CRN 76-05-1
CMF C2 H F3 O2

RN 477191-64-3 USPATFULL
 CN Benzamide, N,N-bis(1-methylethyl)-4-[{3-[{methylsulfonyl}amino]phenyl}[4-(3-thienylmethyl)-1-piperazinyl]methyl]-, dihydrochloride (9CI) (CA INDEX NAME)



RN 477191-65-4 USPATFULL
 CN Benzamide, 4-[{4-(3-furanyl)methyl}-1-piperazinyl][3-({methylsulfonyl}amino)phenyl]methyl-N,N-bis(1-methylethyl)- (9CI) (CA INDEX NAME)

(INDEX NAME)

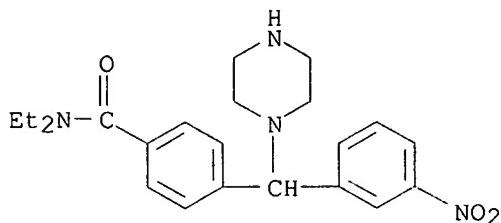


IT 477191-80-3

(preparation of 4-(phenyl-piperazinyl-methyl)-benzamides as δ opioid receptor agonists for treating pain, anxiety or gastrointestinal disorders)

RN 477191-80-3 USPATFULL

CN Benzamide, N,N-diethyl-4-[(3-nitrophenyl)-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)



IT 477191-72-3P 477191-73-4P 477191-74-5P

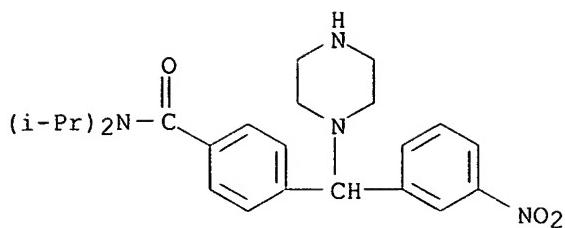
477191-75-6P 477191-76-7P 477191-77-8P

477191-78-9P

(preparation of 4-(phenyl-piperazinyl-methyl)-benzamides as δ opioid receptor agonists for treating pain, anxiety or gastrointestinal disorders)

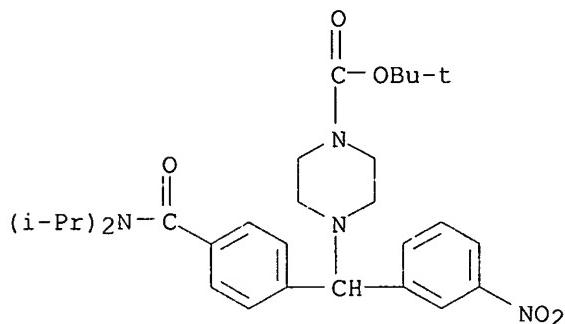
RN 477191-72-3 USPATFULL

CN Benzamide, N,N-bis(1-methylethyl)-4-[(3-nitrophenyl)-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)



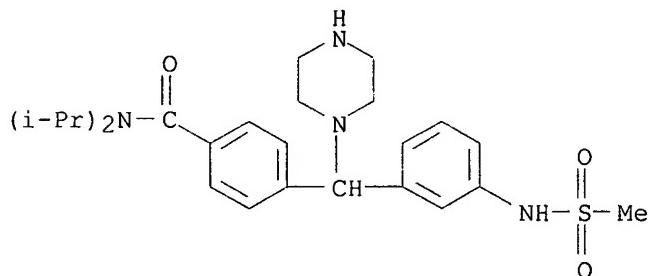
RN 477191-73-4 USPATFULL

CN 1-Piperazinecarboxylic acid, 4-[[4-[[bis(1-methylethyl)amino]carbonyl]phenyl](3-nitrophenyl)methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



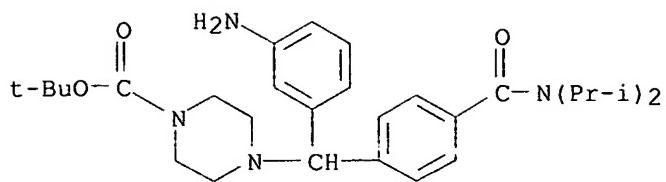
RN 477191-74-5 USPATFULL

CN Benzamide, N,N-bis(1-methylethyl)-4-[(3-[(methylsulfonyl)amino]phenyl)-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

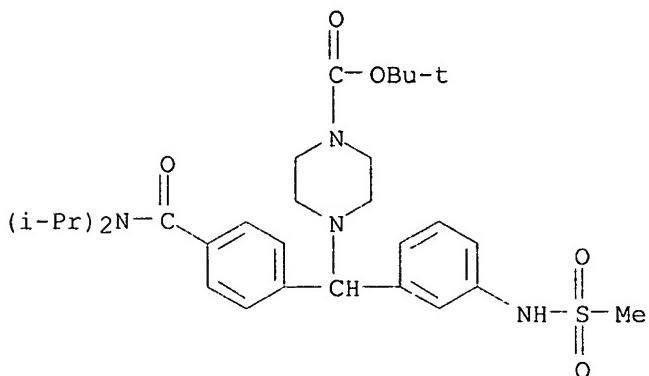


RN 477191-75-6 USPATFULL

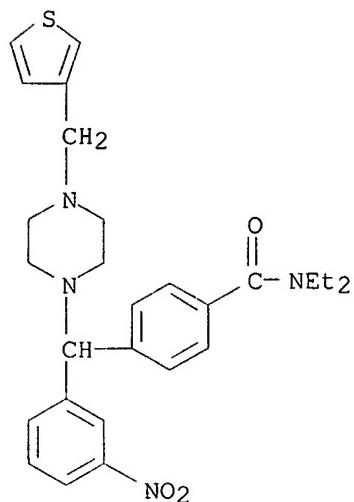
CN 1-Piperazinecarboxylic acid, 4-[(3-aminophenyl)[4-[[bis(1-methylethyl)amino]carbonyl]phenyl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



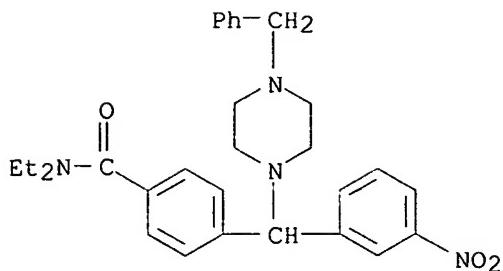
RN 477191-76-7 USPATFULL
 CN 1-Piperazinecarboxylic acid, 4-[{4-[(bis(1-methylethyl)amino)carbonyl]phenyl}[3-[(methylsulfonyl)amino]phenyl]methyl]-, 1,1-dimethylethyl ester
 (9CI) (CA INDEX NAME)



RN 477191-77-8 USPATFULL
 CN Benzamide, N,N-diethyl-4-[(3-nitrophenyl)[4-(3-thienylmethyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RN 477191-78-9 USPATFULL
 CN Benzamide, N,N-diethyl-4-[(3-nitrophenyl)[4-(phenylmethyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



L12 ANSWER 4 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2002:206661 USPATFULL

TITLE: Compositions and Methods for Reducing Respiratory Depression and Attendant Side Effects of Mu Opioid Compounds

INVENTOR(S): Chang , Kwen-Jen , Mr., 104 Sierra Drive, Chapel Hill, NC, UNITED STATES 27514
McNutt , Robert W. , Jr. , Mr., 700 Morreene Road, Apt. B-9, Durham, NC, UNITED STATES 27705
Pettit , Hugh O. , Mr., 106 Wyatts Pond Lane, Cary, NC, UNITED STATES 27513
Bishop , Michael J. , Mr., 235 Lochridge Drive, Durham, NC, UNITED STATES 27713

PATENT ASSIGNEE(S): Ardent Pharmaceuticals, Inc., RTP, 27709-2278, UNITED STATES, NC (U.S. individual)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002111359	A1	20020815
	US 6919350	B2	20050719
APPLICATION INFO.:	US 2001-974004	A1	20011009 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1999-9352308, filed on 12 Jul 1999, GRANTED, Pat. No. US 6300332 Division of Ser. No. US 1997-8887312, filed on 3 Jul 1997, GRANTED, Pat. No. US 5985880 Continuation-in-part of Ser. No. US 1996-8658726, filed on 5 Jun 1996, GRANTED, Pat. No. US 5807858		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Steven J. Hultquist, Marianne Fuierer, 6320 Quadrangle, Suite 110, Chapel Hill, NC, 27517		
NUMBER OF CLAIMS:	29		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	2 Drawing Page(s)		
LINE COUNT:	2405		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
AB	Abstract of Disclosure		

A method of reducing, treating or preventing drug-mediated respiratory depression, muscle rigidity, or nausea/vomiting in an animal, incident to the administration to said animal of a mixed delta/mu opioid agonist or a respiratory depression-mediating drug, comprising administering to the animal receiving said drug an effective amount of a delta receptor agonist compound. Preferred examples of such delta receptor agonist compound include diarylmethyl piperazine compounds and diarylmethyl piperidine compounds, and pharmaceutical compositions thereof, having

utility in medical therapy for reducing respiratory depression associated with certain analgesics, such as mu opiates.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 155766-20-4P 155766-21-5P 155773-61-8P

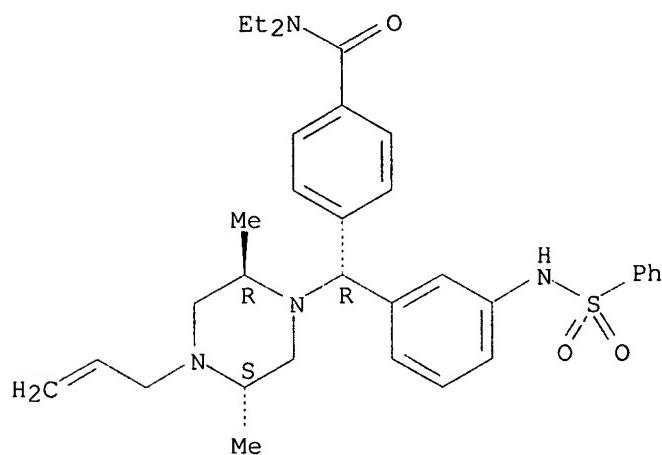
155806-56-7P 155893-51-9P

(preparation and analgesic activity of)

RN 155766-20-4 USPATFULL

CN Benzamide, 4-[{2,5-dimethyl-4-(2-propenyl)-1-piperazinyl}[3-[(phenylsulfonyl)amino]phenyl]methyl]-N,N-diethyl-, dihydrochloride, [1(R*),2 α ,5 β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

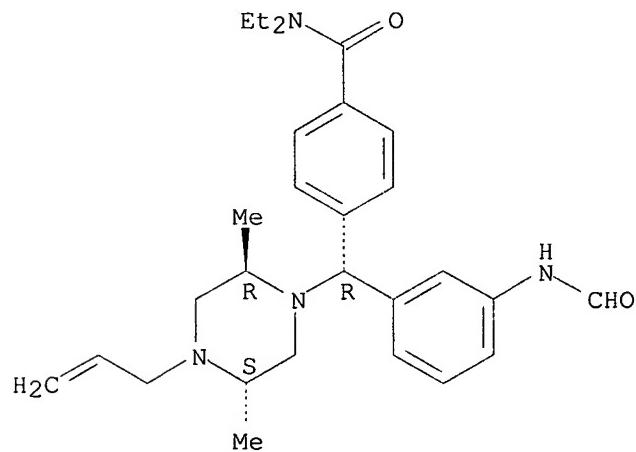


●2 HCl

RN 155766-21-5 USPATFULL

CN Benzamide, 4-[{2,5-dimethyl-4-(2-propenyl)-1-piperazinyl}[3-(formylamino)phenyl]methyl]-N,N-diethyl-, [1(R*),2 α ,5 β]- (9CI) (CA INDEX NAME)

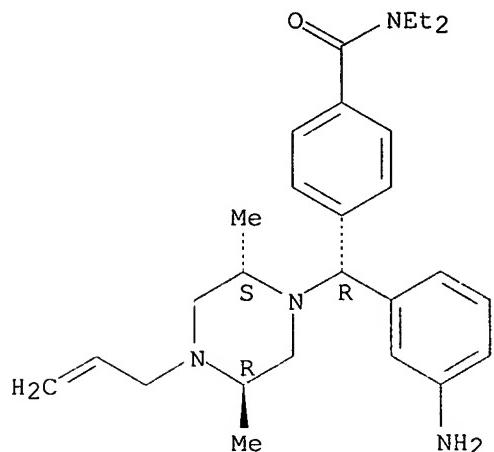
Relative stereochemistry.



RN 155773-61-8 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, monohydrochloride,
[1(S*),2 α ,5 β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

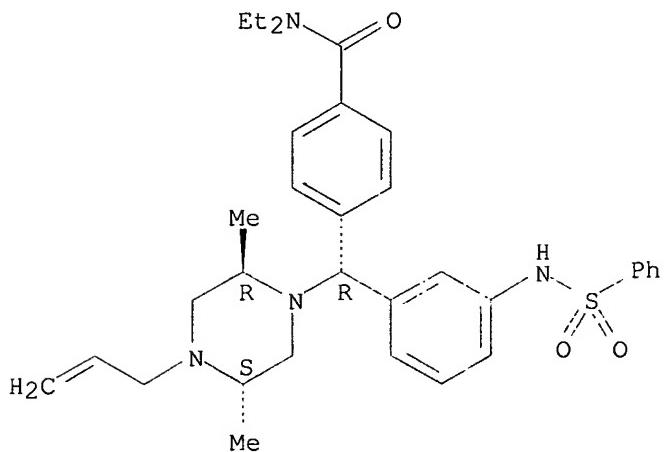


● HCl

RN 155806-56-7 USPATFULL

CN Benzamide, 4-[(2,5-dimethyl-4-(2-propenyl)-1-piperazinyl)[3-(phenylsulfonyl)amino]phenyl)methyl]-N,N-diethyl-,
[1(R*),2 α ,5 β]- (9CI) (CA INDEX NAME)

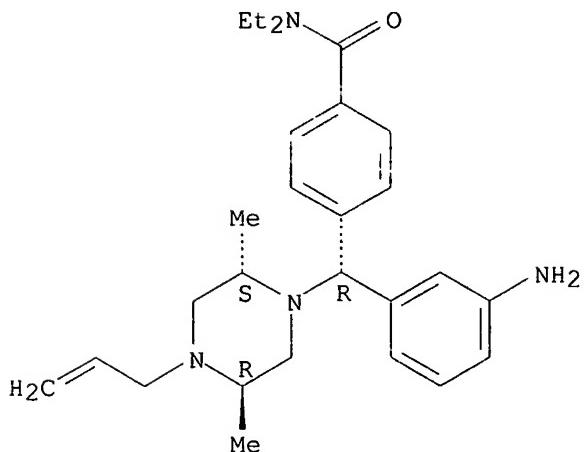
Relative stereochemistry.



RN 155893-51-9 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, [1(S*),2 α ,5 β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



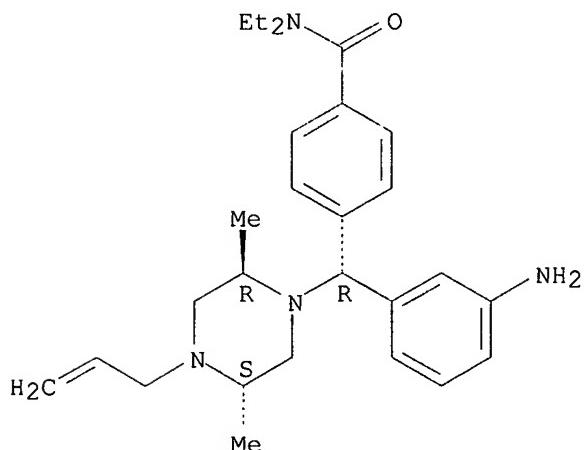
IT 155773-60-7P

(preparation and analgesic activity of, reaction of)

RN 155773-60-7 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



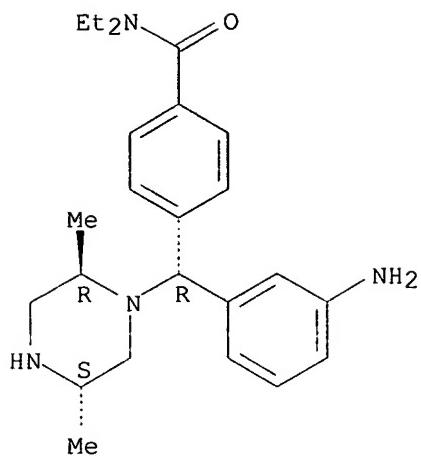
IT 155893-49-5P 155893-50-8P

(preparation and reaction of, in preparation of analgesics)

RN 155893-49-5 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)(2,5-dimethyl-1-piperazinyl)methyl]-N,N-diethyl-, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

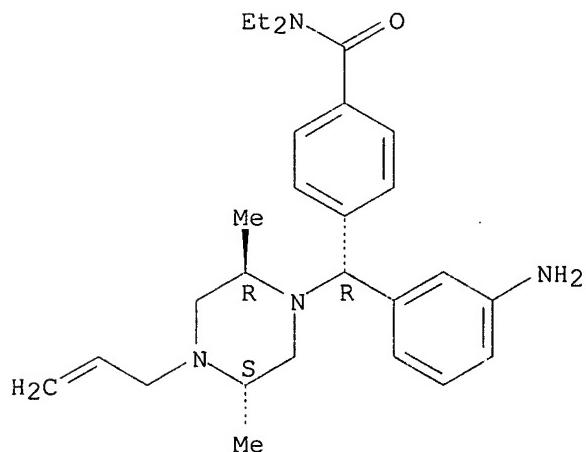
Relative stereochemistry.



RN 155893-50-8 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, monohydrochloride,
[1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

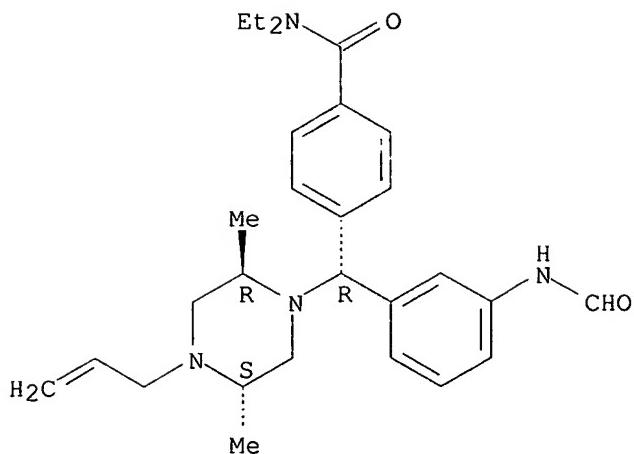
IT 155836-61-6

(reaction of, in preparation of analgesics)

RN 155836-61-6 USPATFULL

CN Benzamide, 4-[[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl][3-(formylamino)phenyl]methyl]-N,N-diethyl-, monohydrochloride,
[1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

L12 ANSWER 5 OF 10 USPATFULL on STN

ACCESSION NUMBER:

2001:173586 USPATFULL

TITLE:

Methods for reducing respiratory depression and attendant side effects of mu opioid compounds

INVENTOR(S):

Chang, Kwen-Jen, Chapel Hill, NC, United States

McNutt, Jr., Robert W., Durham, NC, United States

Pettit, Hugh O., Cary, NC, United States

Bishop, Michael J., Durham, NC, United States

PATENT ASSIGNEE(S):
Delta Pharmaceuticals, Inc., Durham, NC, United States
(U.S. corporation)

NUMBER	KIND	DATE
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PATENT INFORMATION: US 6300332 B1 20011009 <--

APPLICATION INFO.: US 1999-352308 19990712 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1997-887312, filed on 3 Jul 1997, now patented, Pat. No. US 5985880, issued on 16 Nov 1999 Continuation-in-part of Ser. No. US 1996-658726, filed on 5 Jun 1996, now patented, Pat. No. US 5807858, issued on 15 Sep 1998

DOCUMENT TYPE: Utility

FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Jarvis, William R. A.

LEGAL REPRESENTATIVE: Hultquist, Steven J.

NUMBER OF CLAIMS: 25

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT: 2505

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of reducing, treating or preventing drug-mediated respiratory depression, muscle rigidity, or nausea/vomiting in an animal, incident to the administration to said animal of a mixed delta/mu opioid agonist or a respiratory depression-mediating drug, comprising administering to the animal receiving said drug an effective amount of a delta receptor agonist compound.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 155766-20-4P 155766-21-5P 155773-61-8P

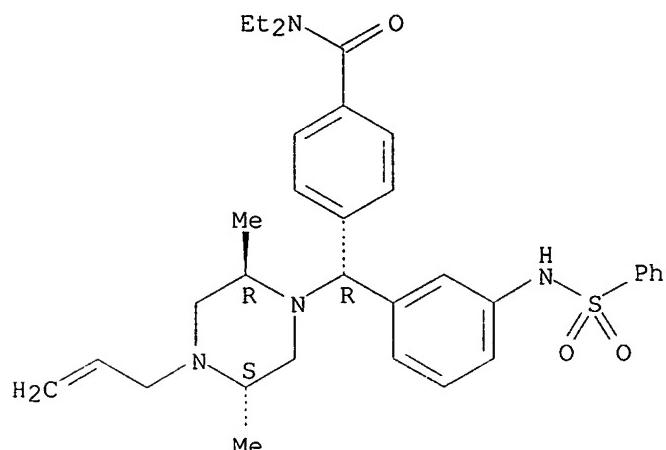
155806-56-7P 155893-51-9P

(preparation and analgesic activity of)

RN 155766-20-4 USPATFULL

CN Benzamide, 4-[(2,5-dimethyl-4-(2-propenyl)-1-piperazinyl)[3-
[(phenylsulfonyl)amino]phenyl]methyl]-N,N-diethyl-, dihydrochloride,
[1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

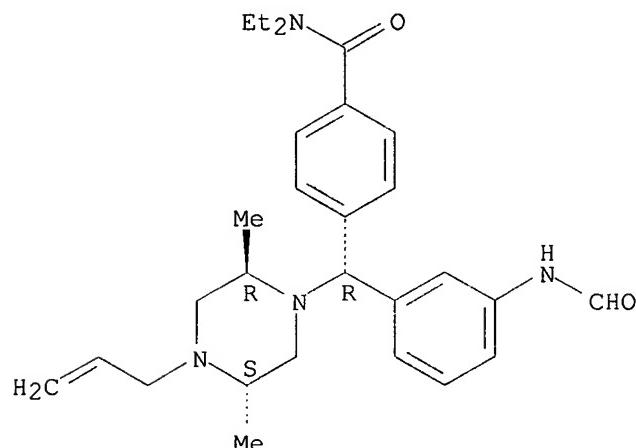


●2 HCl

RN 155766-21-5 USPATFULL

CN Benzamide, 4-[(2,5-dimethyl-4-(2-propenyl)-1-piperazinyl)[3-
(formylamino)phenyl]methyl]-N,N-diethyl-, [1(R*),2α,5β]-
(9CI) (CA INDEX NAME)

Relative stereochemistry.

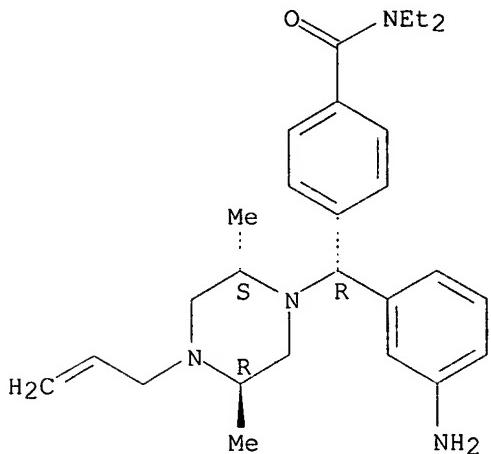


RN 155773-61-8 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-

piperazinyl]methyl]-N,N-diethyl-, monohydrochloride,
[1(S*),2 α ,5 β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

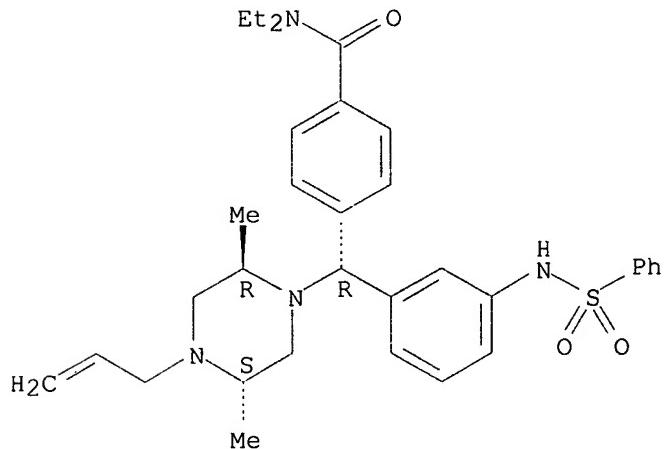


● HCl

RN 155806-56-7 USPATFULL

CN Benzamide, 4-[[(2,5-dimethyl-4-(2-propenyl)-1-piperazinyl)[3-[(phenylsulfonyl)amino]phenyl]methyl]-N,N-diethyl-, [1(R*),2 α ,5 β]- (9CI) (CA INDEX NAME)

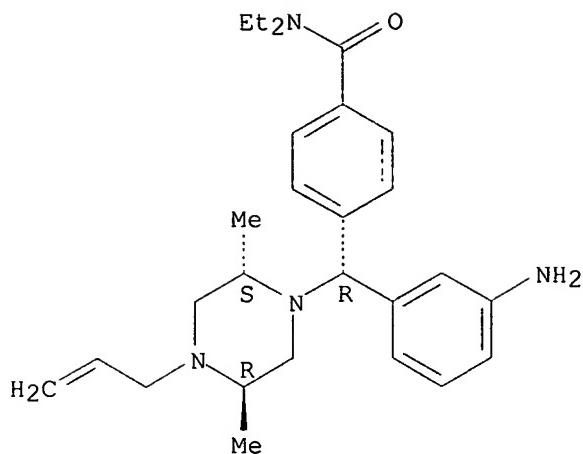
Relative stereochemistry.



RN 155893-51-9 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, [1(S*),2 α ,5 β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



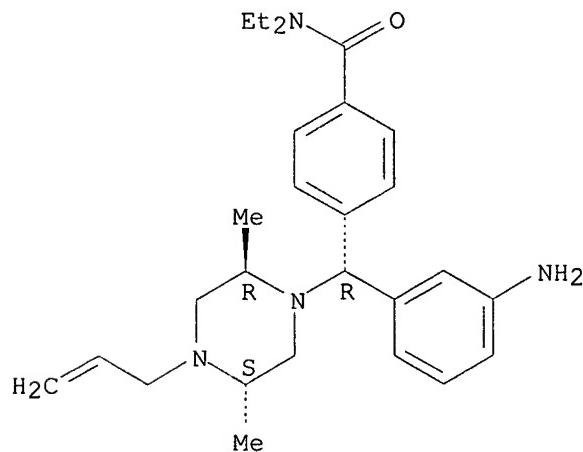
IT 155773-60-7P

(preparation and analgesic activity of, reaction of)

RN 155773-60-7 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



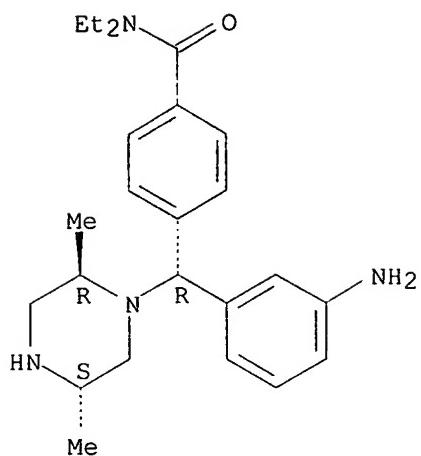
IT 155893-49-5P 155893-50-8P

(preparation and reaction of, in preparation of analgesics)

RN 155893-49-5 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)(2,5-dimethyl-1-piperazinyl)methyl]-N,N-diethyl-, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

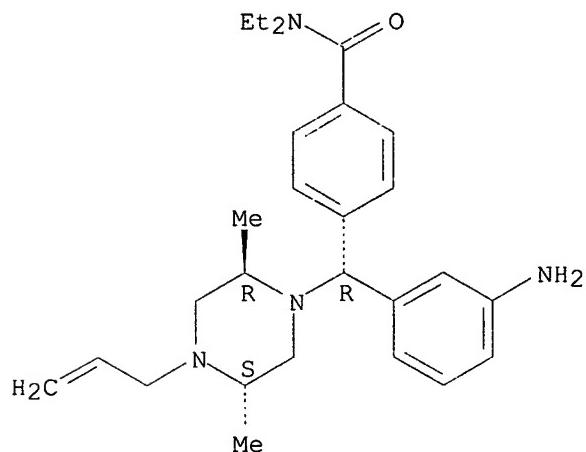
Relative stereochemistry.



RN 155893-50-8 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, monohydrochloride, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

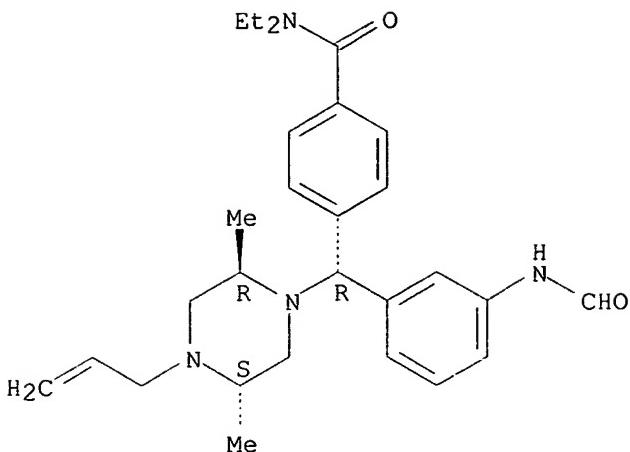
IT 155836-61-6

(reaction of, in preparation of analgesics)

RN 155836-61-6 USPATFULL

CN Benzamide, 4-[[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl][3-(formylamino)phenyl]methyl]-N,N-diethyl-, monohydrochloride, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

L12 ANSWER 6 OF 10 USPATFULL on STN

ACCESSION NUMBER:

1998:162513 USPATFULL

TITLE:

Opioid diarylmethylpiperazines and piperidines

INVENTOR(S):

Chang, Kwen-Jen, Chapel Hill, NC, United States

Boswell, Grady Evan, Cary, NC, United States

Bubacz, Dulce Garrido, Cary, NC, United States

Collins, Mark Allan, Raleigh, NC, United States

Davis, Ann Otstot, Raleigh, NC, United States

McNutt, Jr., Robert Walton, Durham, NC, United States

PATENT ASSIGNEE(S): Delta Pharmaceuticals, Inc., Chapel Hill, NC, United States (U.S. corporation)

NUMBER KIND DATE

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PATENT INFORMATION:

US 5854249 19981229

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APPLICATION INFO.:

US 1997-864667 19970528 (8)

RELATED APPLN. INFO.:

Division of Ser. No. US 1994-284445, filed on 3 Aug
1994, now patented, Pat. No. US 5658908

NUMBER DATE

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PRIORITY INFORMATION:

GB 1992-2238 19920203

<--

DOCUMENT TYPE:

Utility

FILE SEGMENT:

Granted

PRIMARY EXAMINER:

Shah, Mukund J.

ASSISTANT EXAMINER:

Ngo, Tamthom T.

LEGAL REPRESENTATIVE:

Hultquist, Steven J., Barrett, William A.

NUMBER OF CLAIMS:

22

EXEMPLARY CLAIM:

1

LINE COUNT:

5761

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for the treatment or prophylaxis of one or more conditions or disorders selected from the group consisting of physiological pain, diarrhea, urinary incontinence, mental illness, drug and alcohol addiction/overdose, lung edema, depression, apnea, cognitive disorders and gastrointestinal disorders, comprising administration to a

subject in need of such treatment or prophylaxis, of a diarylmethylpiperazine or piperidine opioid compound.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 155766-20-4P 155766-21-5P 155773-61-8P

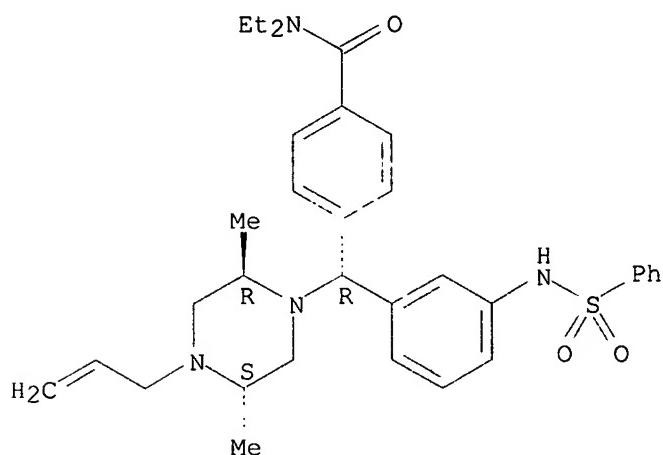
155806-56-7P 155893-51-9P

(preparation and analgesic activity of)

RN 155766-20-4 USPATFULL

CN Benzamide, 4-[[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl][3-[(phenylsulfonyl)amino]phenyl]methyl]-N,N-diethyl-, dihydrochloride, [1(R*),2 α ,5 β] - (9CI) (CA INDEX NAME)

Relative stereochemistry.

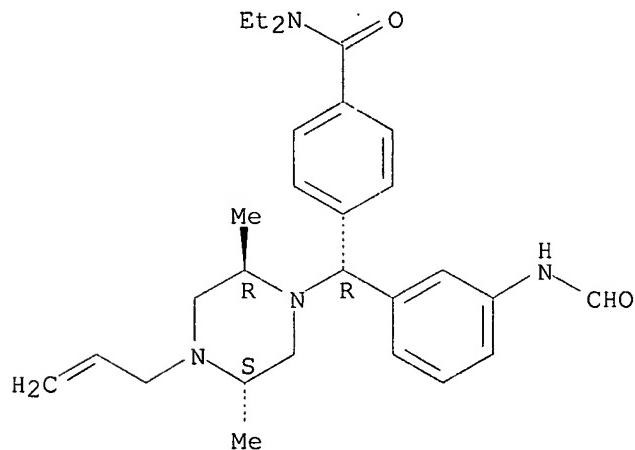


●2 HCl

RN 155766-21-5 USPATFULL

CN Benzamide, 4-[[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl][3-(formylamino)phenyl]methyl]-N,N-diethyl-, [1(R*),2 α ,5 β] - (9CI) (CA INDEX NAME)

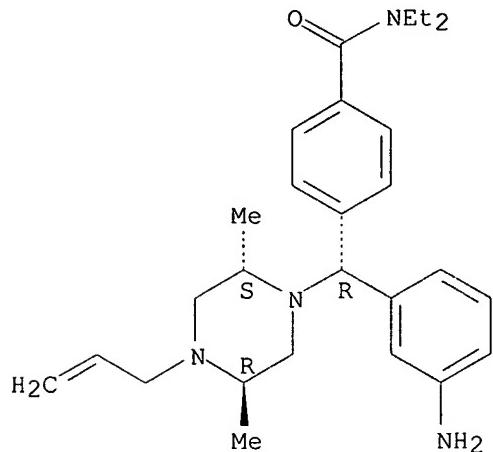
Relative stereochemistry.



RN 155773-61-8 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, monohydrochloride,
[1(S*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

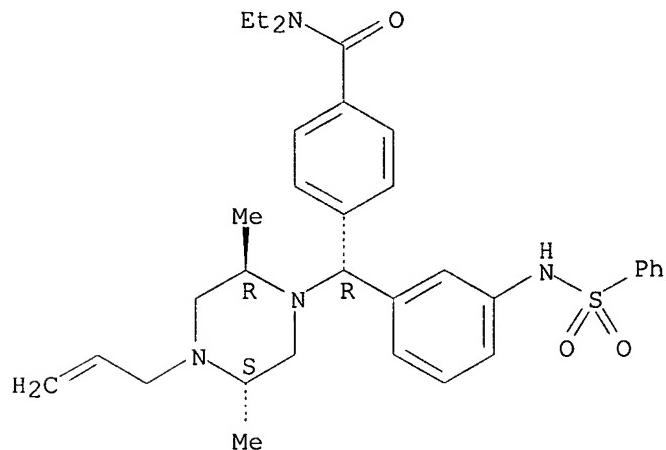


● HCl

RN 155806-56-7 USPATFULL

CN Benzamide, 4-[[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl][3-(phenylsulfonyl)amino]phenyl]methyl]-N,N-diethyl-,
[1(R*),2α,5β]- (9CI) (CA INDEX NAME)

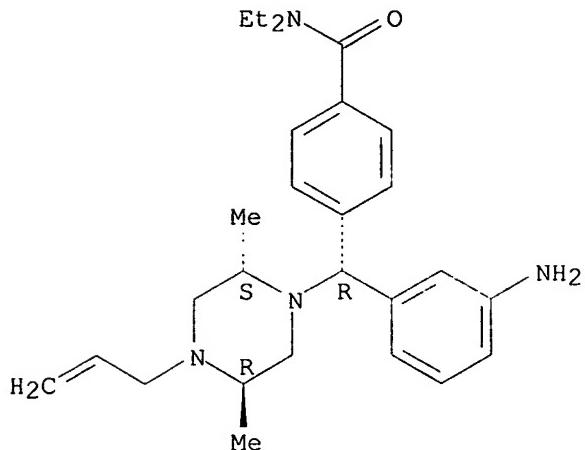
Relative stereochemistry.



RN 155893-51-9 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, [1(S*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



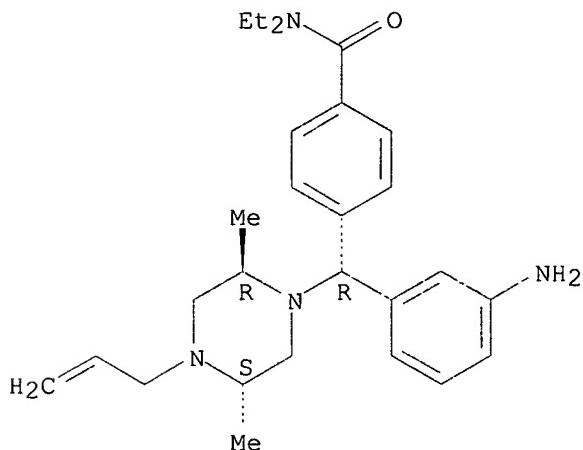
IT 155773-60-7P

(preparation and analgesic activity of, reaction of)

RN 155773-60-7 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



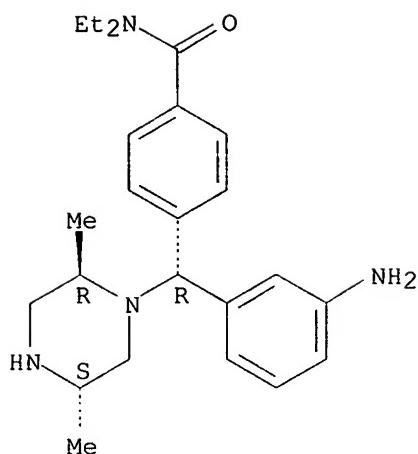
IT 155893-49-5P 155893-50-8P

(preparation and reaction of, in preparation of analgesics)

RN 155893-49-5 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)(2,5-dimethyl-1-piperazinyl)methyl]-N,N-diethyl-, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

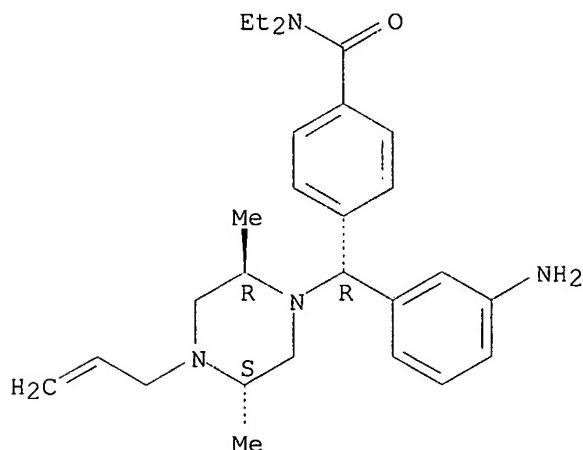
Relative stereochemistry.



RN 155893-50-8 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, monohydrochloride, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

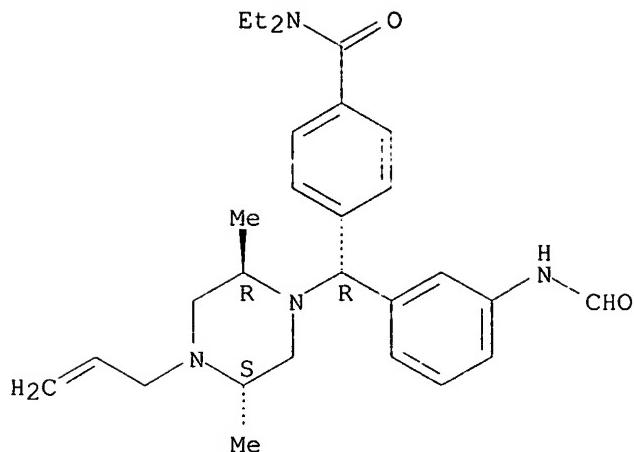
IT 155836-61-6

(reaction of, in preparation of analgesics)

RN 155836-61-6 USPATFULL

CN Benzamide, 4-[(2,5-dimethyl-4-(2-propenyl)-1-piperazinyl)[3-(formylamino)phenyl]methyl]-N,N-diethyl-, monohydrochloride, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

L12 ANSWER 7 OF 10 USPATFULL on STN

ACCESSION NUMBER: 1998:111938 USPATFULL

TITLE: Compositions and methods for reducing respiratory depression

INVENTOR(S): Chang, Kwen-Jen, Chapel Hill, NC, United States
McNutt, Jr., Robert W., Durham, NC, United States

Pettit, Hugh O., Cary, NC, United States

Bishop, Michael J., Durham, NC, United States

PATENT ASSIGNEE(S): Delta Pharmaceutical, Inc., Chapel Hill, NC, United States (U.S. corporation)

NUMBER	KIND	DATE
US 5807858		19980915
US 1996-658726		19960605 (8)

<--

PATENT INFORMATION:

APPLICATION INFO.: US 1996-658726

19960605

(8)

DOCUMENT TYPE: Utility

FILE SEGMENT: Granted

PRIMARY EXAMINER: Rotman, Alan L.

ASSISTANT EXAMINER: Aulakh, Charanjit S.

LEGAL REPRESENTATIVE: Hultquist, Steven J., Barrett, William A.

NUMBER OF CLAIMS: 46

EXEMPLARY CLAIM: 1

LINE COUNT: 2203

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to, inter alia, methods and compositions for reducing, treating or preventing respiratory depression in an animal, using a compound of the formula: ##STR1## wherein: Ar, G, Z, R.², R.³, R.⁴, R.⁵, R.⁶ and R.⁷ are as defined in specification,

or a pharmaceutically acceptable ester or salt thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 155766-20-4P 155766-21-5P 155773-61-8P

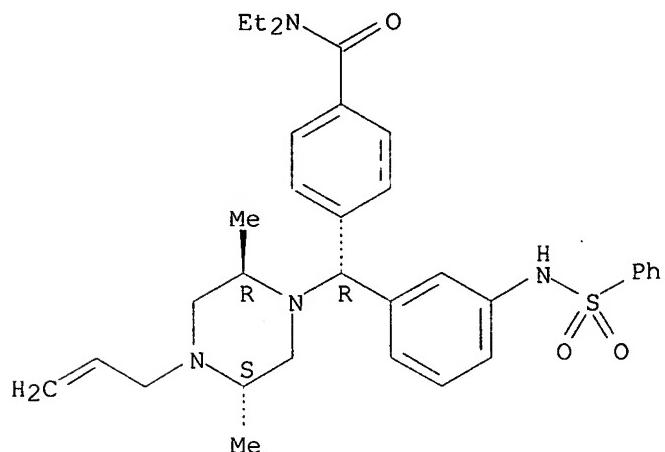
155806-56-7P 155893-51-9P

(preparation and analgesic activity of)

RN 155766-20-4 USPATFULL

CN Benzamide, 4-[{2,5-dimethyl-4-(2-propenyl)-1-piperazinyl}[3-
 (phenylsulfonyl)amino]phenyl]methyl]-N,N-diethyl-, dihydrochloride,
 [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

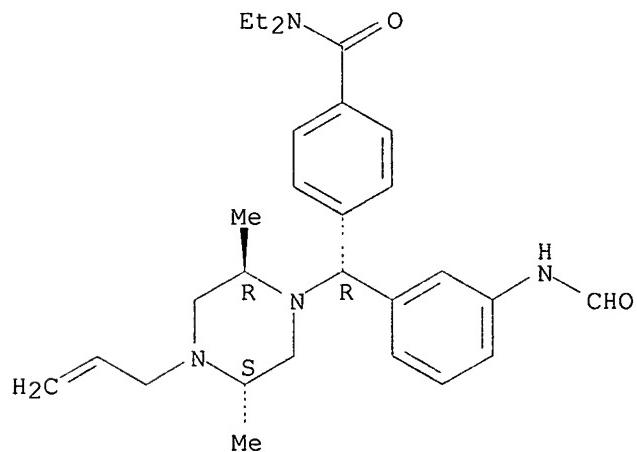


●2 HCl

RN 155766-21-5 USPATFULL

CN Benzamide, 4-[{2,5-dimethyl-4-(2-propenyl)-1-piperazinyl}[3-
 (formylamino)phenyl]methyl]-N,N-diethyl-, [1(R*),2α,5β]-
 (9CI) (CA INDEX NAME)

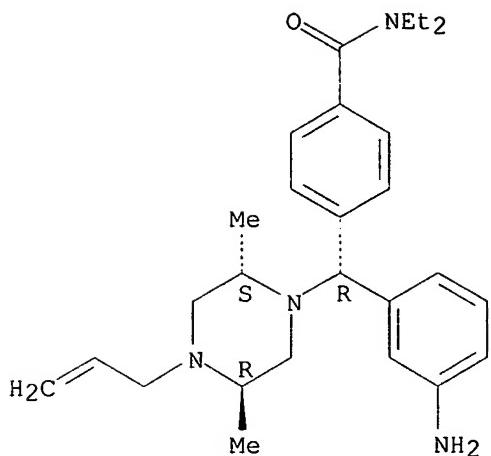
Relative stereochemistry.



RN 155773-61-8 USPATFULL

CN Benzamide, 4-[{(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-
 piperazinyl]methyl}-N,N-diethyl-, monohydrochloride,
 [1(S*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

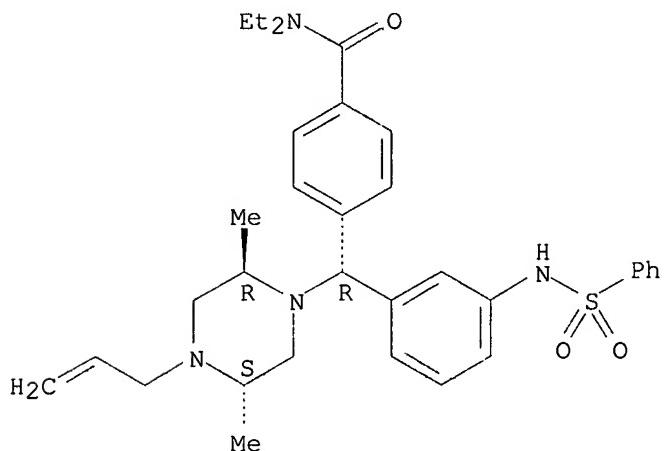


● HCl

RN 155806-56-7 USPATFULL

CN Benzamide, 4-[(2,5-dimethyl-4-(2-propenyl)-1-piperazinyl)[3-
[(phenylsulfonyl)amino]phenyl]methyl]-N,N-diethyl-,
[1(R*),2α,5β]- (9CI) (CA INDEX NAME)

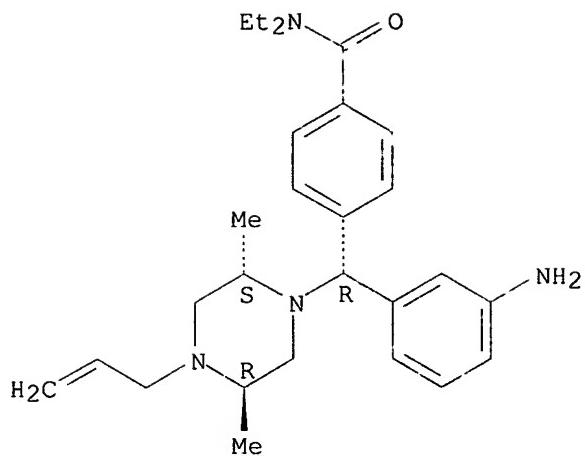
Relative stereochemistry.



RN 155893-51-9 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-
piperazinyl]methyl]-N,N-diethyl-, [1(S*),2α,5β]- (9CI) (CA
INDEX NAME)

Relative stereochemistry.



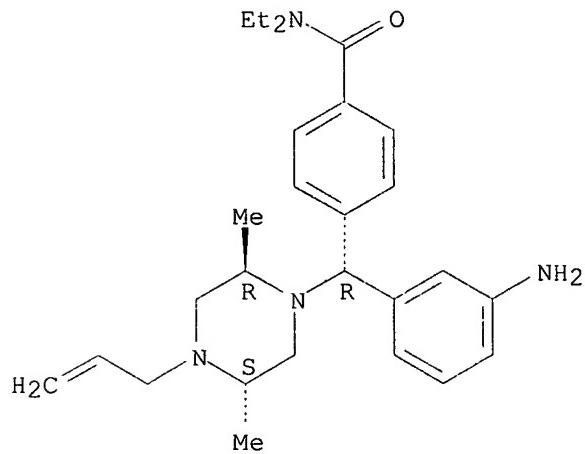
IT 155773-60-7P

(preparation and analgesic activity of, reaction of)

RN 155773-60-7 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



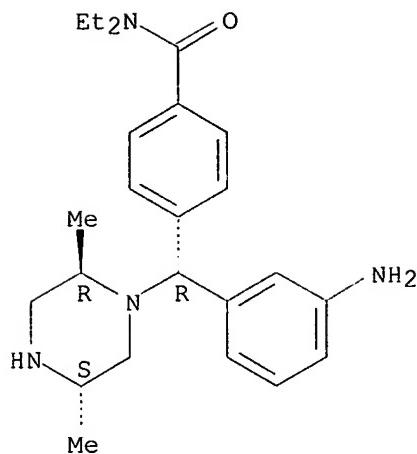
IT 155893-49-5P 155893-50-8P

(preparation and reaction of, in preparation of analgesics)

RN 155893-49-5 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)(2,5-dimethyl-1-piperazinyl)methyl]-N,N-diethyl-, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

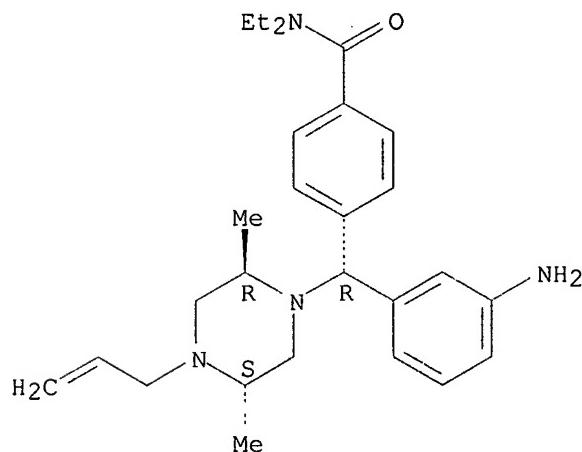
Relative stereochemistry.



RN 155893-50-8 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, monohydrochloride, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

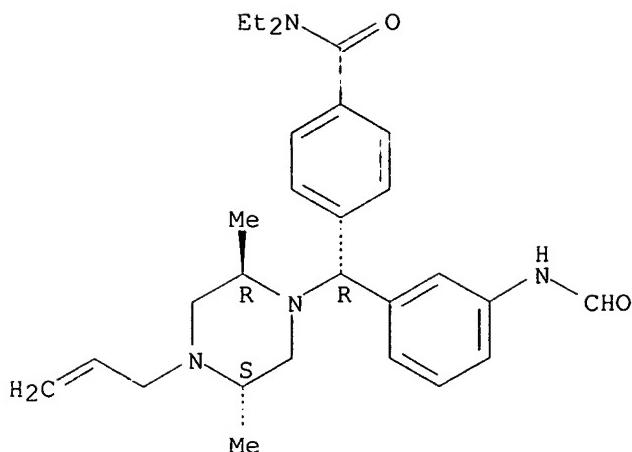
IT 155836-61-6

(reaction of, in preparation of analgesics)

RN 155836-61-6 USPATFULL

CN Benzamide, 4-[[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl][3-(formylamino)phenyl]methyl]-N,N-diethyl-, monohydrochloride, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

L12 ANSWER 8 OF 10 USPATFULL on STN

ACCESSION NUMBER:

97:73615 USPATFULL

TITLE:

Opioid diarylmethylpiperazines and piperdines

INVENTOR(S):

Chang, Kwen-Jen, Chapel Hill, NC, United States

Boswell, Grady Evan, Cary, NC, United States

Bubacz, Dulce Garrido, Cary, NC, United States

Collins, Mark Allan, Raleigh, NC, United States

Davis, Ann Otstot, Raleigh, NC, United States

McNutt, Jr., Robert Walton, Durham, NC, United States

PATENT ASSIGNEE(S): Delta Pharmaceuticals, Inc., Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
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PATENT INFORMATION:	US 5658908		19970819 <--
	WO 9315062		19930805 <--
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APPLICATION INFO.:	US 1994-284445	19940803 (8)	
	WO 1993-GB216	19930202	
		19940803 PCT 371 date	
		19940803 PCT 102(e) date	

	NUMBER	DATE
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PRIORITY INFORMATION:	GB 1992-2238	19920203 <--
DOCUMENT TYPE:	Utility	

FILE SEGMENT: Granted

PRIMARY EXAMINER: Bernhardt, Emily

LEGAL REPRESENTATIVE: Hultquist, Steven J.

NUMBER OF CLAIMS: 26

EXEMPLARY CLAIM: 1,19,21,22

LINE COUNT: 5991

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Diarylmethylpiperazine compounds having utility as receptor-binding species, e.g., for mediating analgesia, and for combatting drug addiction, alcohol addiction, and drug overdose. The compounds may be administered orally, rectally, topically, nasally, ophthalmically, or

parenterally (subcutaneously, intramuscularly, and intravenously), for veterinary and human use, and include delta receptor and mu receptor binding species.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 155766-20-4P 155766-21-5P 155773-61-8P

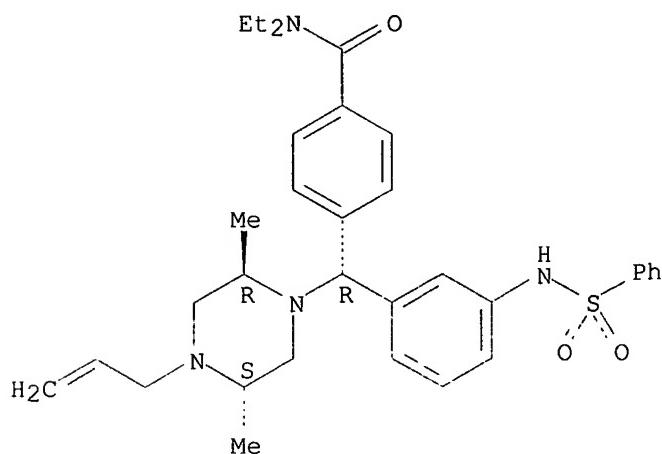
155806-56-7P 155893-51-9P

(preparation and analgesic activity of)

RN 155766-20-4 USPATFULL

CN Benzamide, 4-[(2,5-dimethyl-4-(2-propenyl)-1-piperazinyl)[3-
[(phenylsulfonyl)amino]phenyl]methyl]-N,N-diethyl-, dihydrochloride,
[1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

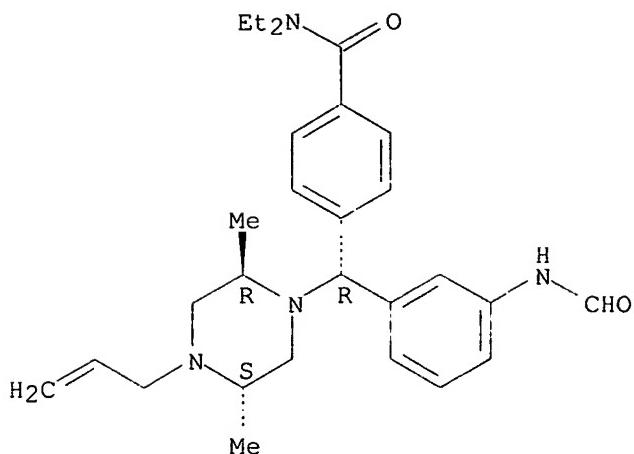


●2 HCl

RN 155766-21-5 USPATFULL

CN Benzamide, 4-[(2,5-dimethyl-4-(2-propenyl)-1-piperazinyl)[3-
(formylamino)phenyl]methyl]-N,N-diethyl-, [1(R*),2α,5β]-
(9CI) (CA INDEX NAME)

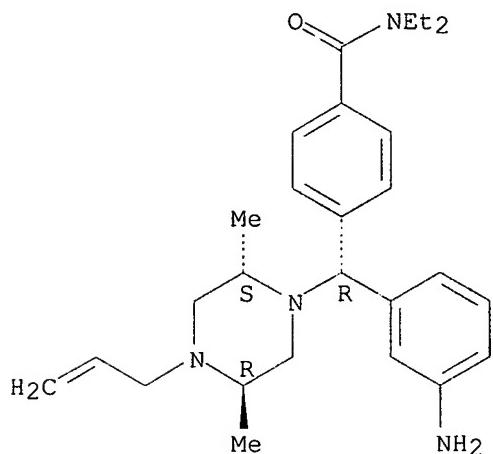
Relative stereochemistry.



RN 155773-61-8 USPATFULL

CN Benzamide, 4-[(3-aminophenyl) [2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, monohydrochloride,
[1(S*),2alpha,5beta]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

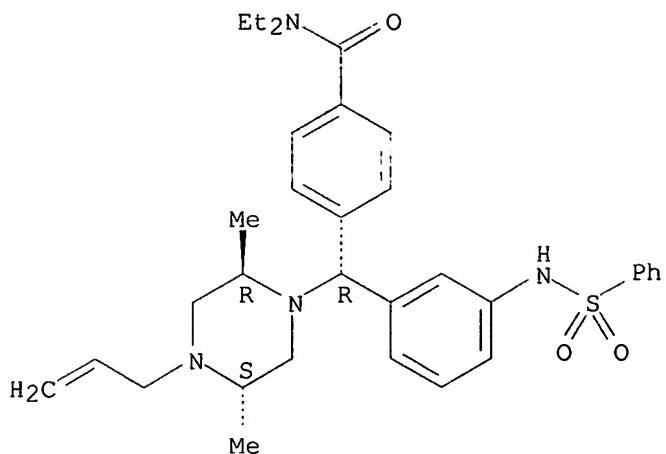


● HCl

RN 155806-56-7 USPATFULL

CN Benzamide, 4-[[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl][3-
[(phenylsulfonyl)amino]phenyl]methyl]-N,N-diethyl-,
[1(R*),2alpha,5beta]- (9CI) (CA INDEX NAME)

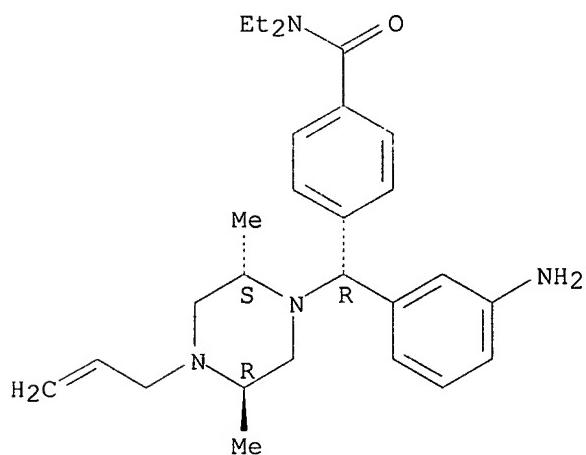
Relative stereochemistry.



RN 155893-51-9 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, [1(S*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



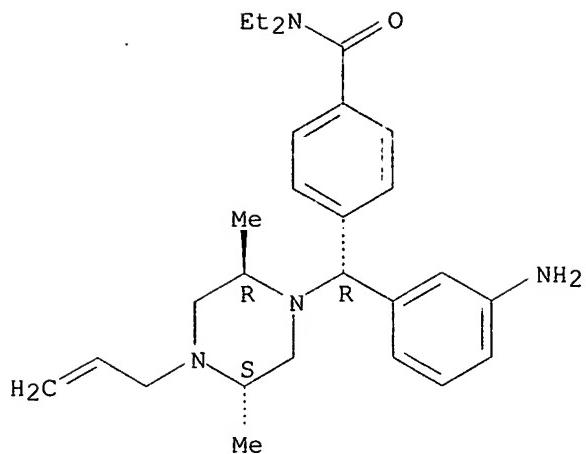
IT 155773-60-7P

(preparation and analgesic activity of, reaction of)

RN 155773-60-7 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



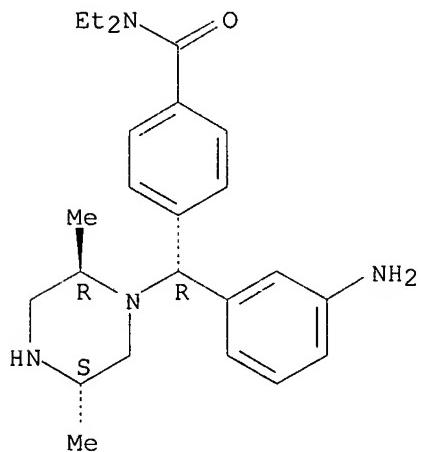
IT 155893-49-5P 155893-50-8P

(preparation and reaction of, in preparation of analgesics)

RN 155893-49-5 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)(2,5-dimethyl-1-piperazinyl)methyl]-N,N-diethyl-, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

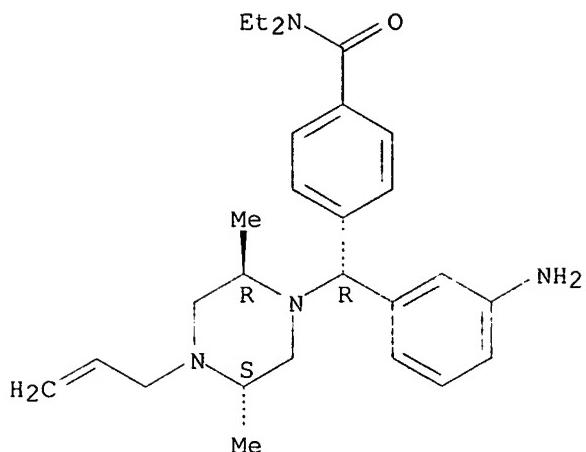
Relative stereochemistry.



RN 155893-50-8 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, monohydrochloride, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

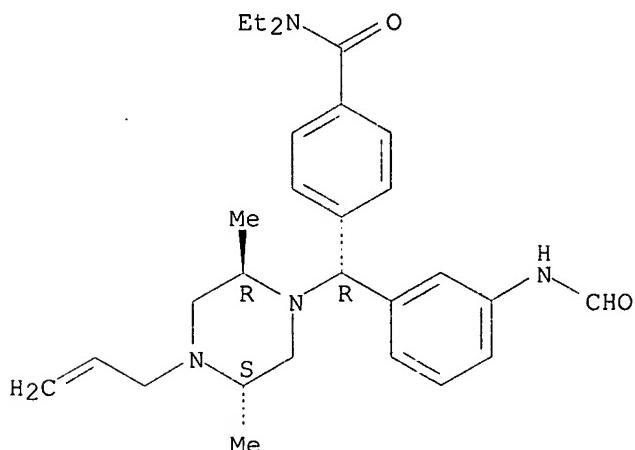
IT 155836-61-6

(reaction of, in preparation of analgesics)

RN 155836-61-6 USPATFULL

CN Benzamide, 4-[{[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl][3-(formylamino)phenyl]methyl}-N,N-diethyl-, monohydrochloride,
[1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

L12 ANSWER 9 OF 10 USPATFULL on STN

ACCESSION NUMBER: 96:104120 USPATFULL

TITLE: Opioid compounds and methods for making therefor

INVENTOR(S): Chang, Kwen-Jen, Chapel Hill, NC, United States

Bubacz, Dulce G., Cary, NC, United States

PATENT ASSIGNEE(S):
 Davis, Ann O., Raleigh, NC, United States
 McNutt, Jr., Robert W., Durham, NC, United States
 Bishop, Michael J., Durham, NC, United States
 Delta Pharmaceuticals, Inc., Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5574159		19961112 <--
APPLICATION INFO.:	US 1995-430677		19950428 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-285313, filed on 3 Aug 1994 which is a continuation-in-part of Ser. No. US 1993-169879, filed on 17 Dec 1993, now abandoned which is a continuation-in-part of Ser. No. US 1993-98333, filed on 30 Jul 1993, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1992-2238	19920203 <--
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Ford, John M.	
ASSISTANT EXAMINER:	Sripada, Pavanaram K.	
LEGAL REPRESENTATIVE:	Hultquist, Steven J.	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
LINE COUNT:	3425	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Diarylmethyl piperazine compounds having utility as exogenous receptor combinator species for binding with receptors such as delta, mu, sigma, and/or kappa receptors are disclosed. Compounds of the invention may be employed as conjugates in agonist/antagonist pairs for transductional monitoring and assays of neurotransmitter function, and also variously exhibit therapeutic utility, including mediating analgesia, and possessing utility for the treatment of diarrhea, urinary incontinence, mental illness, drug and alcohol addiction/overdose, lung edema, depression, asthma, emphysema, cough, and apnea, respiratory depression, cognitive disorders, emesis and gastrointestinal disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

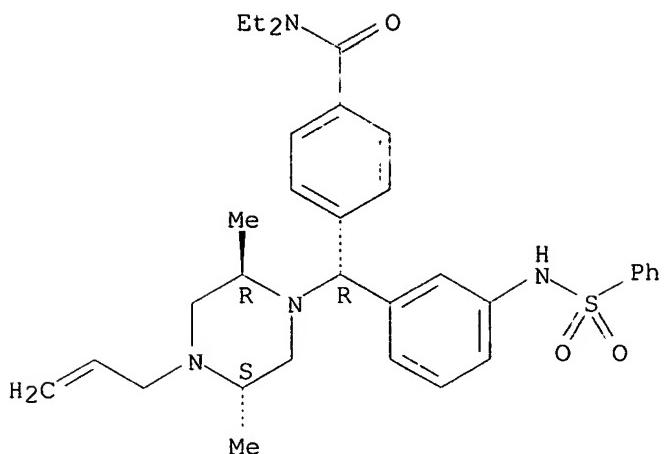
IT 155766-20-4P 155766-21-5P 155773-61-8P

155806-56-7P 155893-51-9P
 (preparation and analgesic activity of)

RN 155766-20-4 USPATFULL

CN Benzamide, 4-[[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl][3-[(phenylsulfonyl)amino]phenyl]methyl]-N,N-diethyl-, dihydrochloride, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

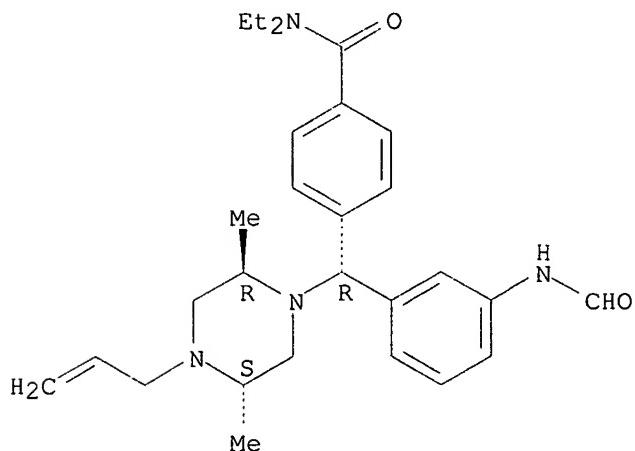


●2 HCl

RN 155766-21-5 USPATFULL

CN Benzamide, 4-[{[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl][3-(formylamino)phenyl]methyl}-N,N-diethyl-, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

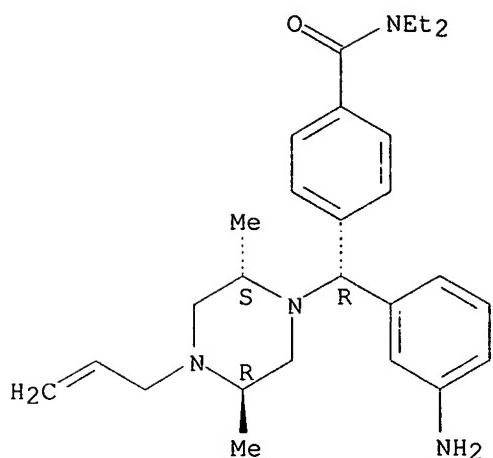
Relative stereochemistry.



RN 155773-61-8 USPATFULL

CN Benzamide, 4-[{(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl}-N,N-diethyl-, monohydrochloride, [1(S*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

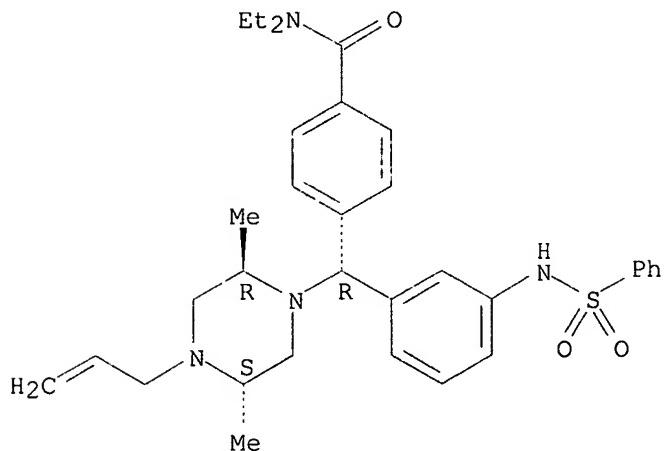


● HCl

RN 155806-56-7 USPATFULL

CN Benzamide, 4-[[(2,5-dimethyl-4-(2-propenyl)-1-piperazinyl)[3-[(phenylsulfonyl)amino]phenyl]methyl]-N,N-diethyl-, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

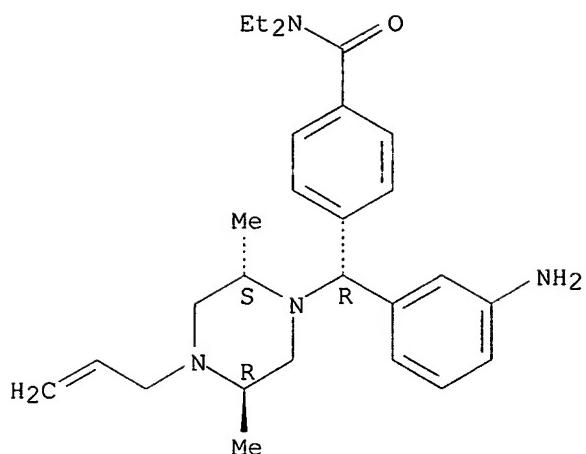
Relative stereochemistry.



RN 155893-51-9 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, [1(S*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



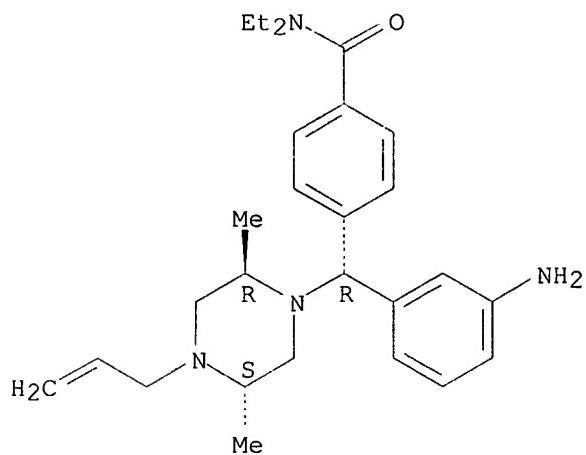
IT 155773-60-7P

(preparation and analgesic activity of, reaction of)

RN 155773-60-7 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



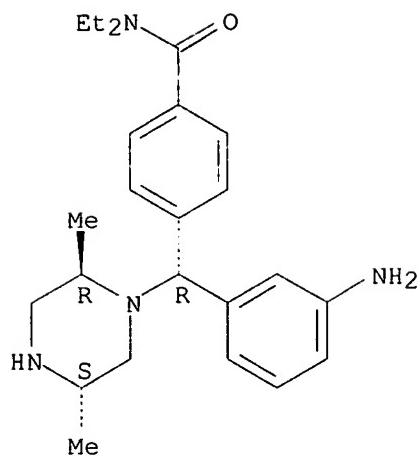
IT 155893-49-5P 155893-50-8P

(preparation and reaction of, in preparation of analgesics)

RN 155893-49-5 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)(2,5-dimethyl-1-piperazinyl)methyl]-N,N-diethyl-, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

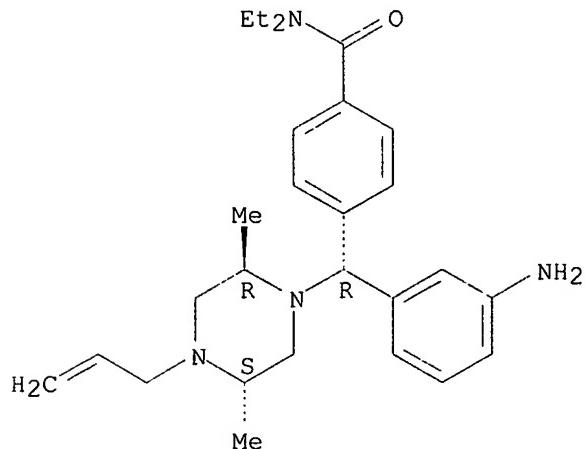
Relative stereochemistry.



RN 155893-50-8 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, monohydrochloride, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

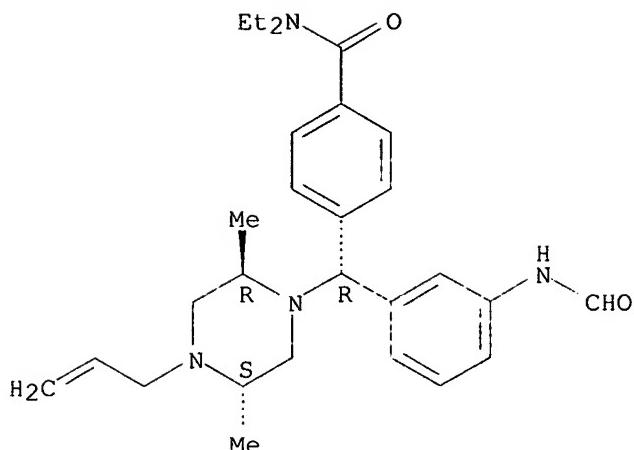
IT 155836-61-6

(reaction of, in preparation of analgesics)

RN 155836-61-6 USPATFULL

CN Benzamide, 4-[[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl][3-(formylamino)phenyl]methyl]-N,N-diethyl-, monohydrochloride, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

L12 ANSWER 10 OF 10 USPATFULL on STN

ACCESSION NUMBER:

96:80271 USPATFULL

TITLE:

Opioid compounds and methods for using same

INVENTOR(S):

Chang, Kwen-Jen, Chapel Hill, NC, United States

Bubacz, Dulce G., Cary, NC, United States

Davis, Ann O., Raleigh, NC, United States

McNutt, Jr., Robert W., Durham, NC, United States

Bishop, Michael J., Durham, NC, United States

PATENT ASSIGNEE(S):

Delta Pharmaceuticals, Inc., Chapel Hill, NC, United States (U.S. corporation)

NUMBER	KIND	DATE
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PATENT INFORMATION: US 5552404 19960903 <--

APPLICATION INFO.: US 1995-431377 19950428 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1994-285313, filed on 3 Aug 1994 which is a continuation-in-part of Ser. No. US 1993-169879, filed on 17 Dec 1993, now abandoned which is a continuation-in-part of Ser. No. US 1993-98333, filed on 30 Jul 1993, now abandoned

DOCUMENT TYPE: Utility

FILE SEGMENT: Granted

PRIMARY EXAMINER: Cintins, Marianne M.

ASSISTANT EXAMINER: MacMillan, Keith

LEGAL REPRESENTATIVE: Hultquist, Steven J.

NUMBER OF CLAIMS: 20

EXEMPLARY CLAIM: 1

LINE COUNT: 3527

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Diarylmethyl piperazine compounds having utility as exogenous receptor combinator species for binding with receptors such as delta, mu, sigma, and/or kappa receptors are disclosed. Compounds of the invention may be employed as conjugates in agonist/antagonist pairs for transductional monitoring and assays of neurotransmitter function, and also variously exhibit therapeutic utility, including mediating analgesia, and possessing utility for the treatment of diarrhea, urinary incontinence,

mental illness, drug and alcohol addiction/overdose, lung edema, depression, asthma, emphysema, cough, and apnea, respiratory depression, cognitive disorders, emesis and gastrointestinal disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 155766-20-4P 155766-21-5P 155773-61-8P

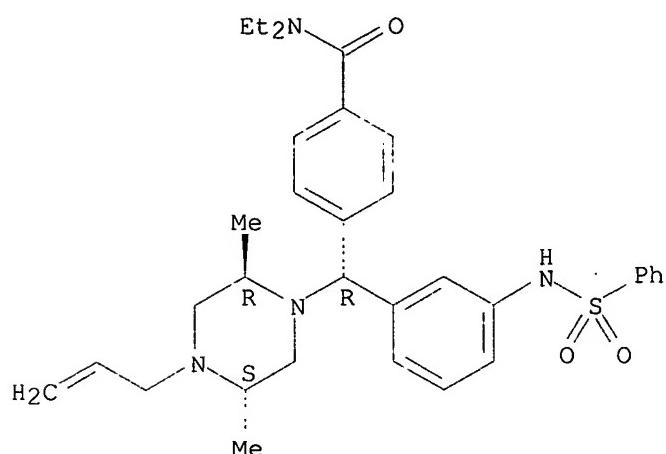
155806-56-7P 155893-51-9P

(preparation and analgesic activity of)

RN 155766-20-4 USPATFULL

CN Benzamide, 4-[(2,5-dimethyl-4-(2-propenyl)-1-piperazinyl)[3-[(phenylsulfonyl)amino]phenyl]methyl]-N,N-diethyl-, dihydrochloride, [1(R*),2 α ,5 β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

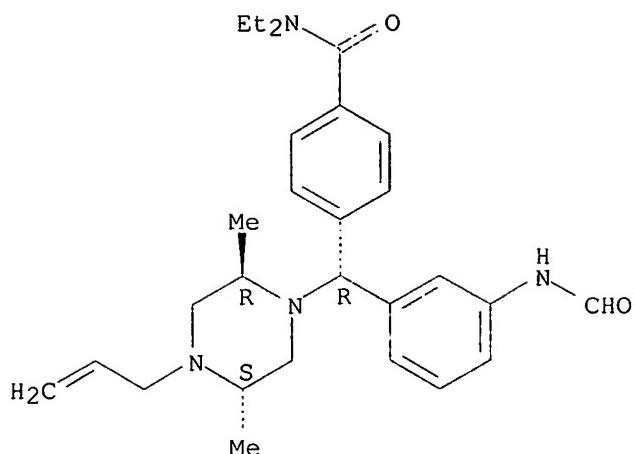


●2 HCl

RN 155766-21-5 USPATFULL

CN Benzamide, 4-[(2,5-dimethyl-4-(2-propenyl)-1-piperazinyl)[3-(formylamino)phenyl]methyl]-N,N-diethyl-, [1(R*),2 α ,5 β]- (9CI) (CA INDEX NAME)

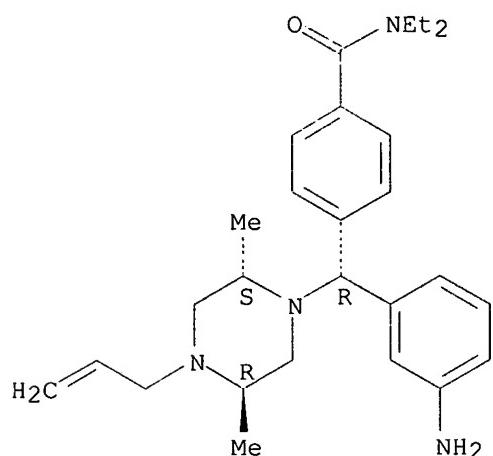
Relative stereochemistry.



RN 155773-61-8 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, monohydrochloride, [1(S*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

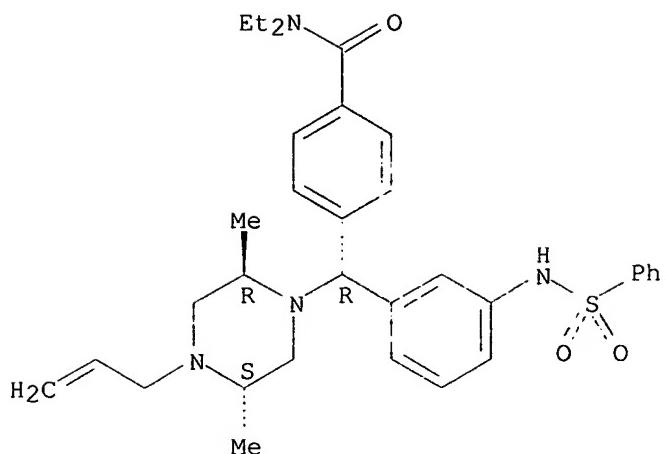


● HCl

RN 155806-56-7 USPATFULL

CN Benzamide, 4-[[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl][3-(phenylsulfonyl)amino]phenyl]methyl]-N,N-diethyl-, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

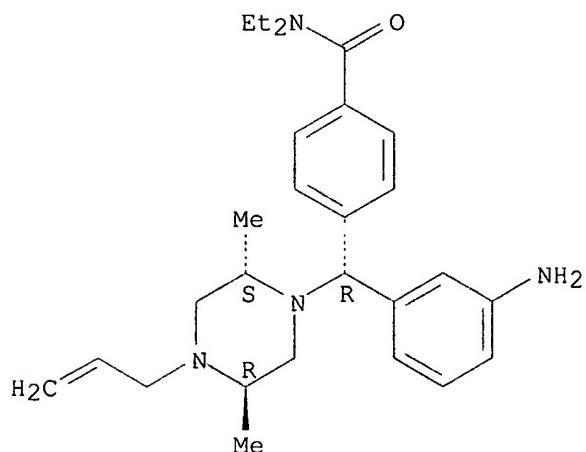
Relative stereochemistry.



RN 155893-51-9 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, [1(S*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



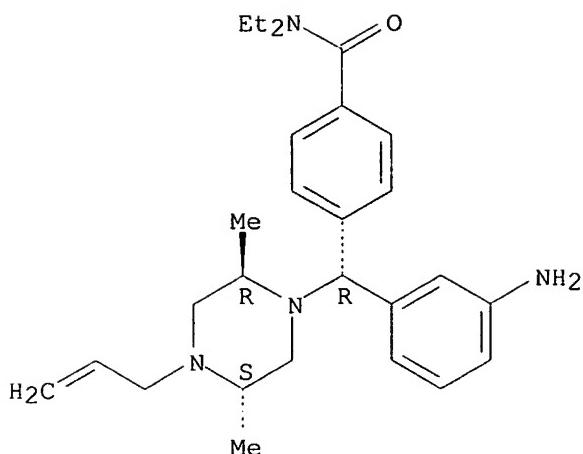
IT 155773-60-7P

(preparation and analgesic activity of, reaction of)

RN 155773-60-7 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



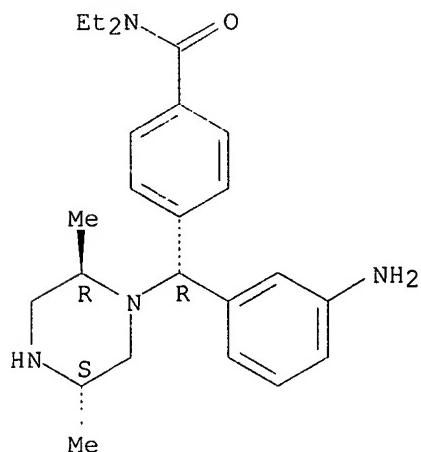
IT 155893-49-5P 155893-50-8P

(preparation and reaction of, in preparation of analgesics)

RN 155893-49-5 USPATFULL

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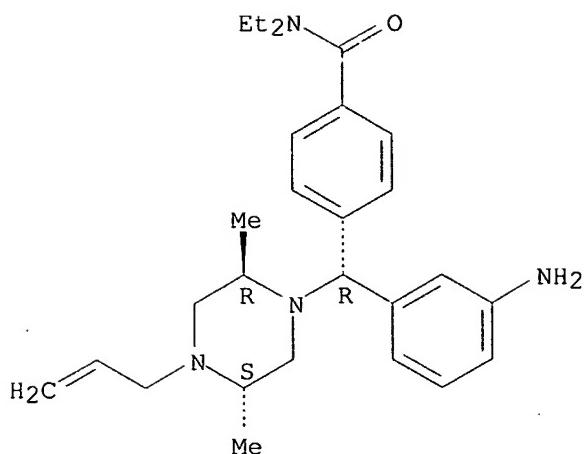
Relative stereochemistry.



RN 155893-50-8 USPATFULL

CN Benzamide, 4-[(3-aminophenyl)[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, monohydrochloride, [1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

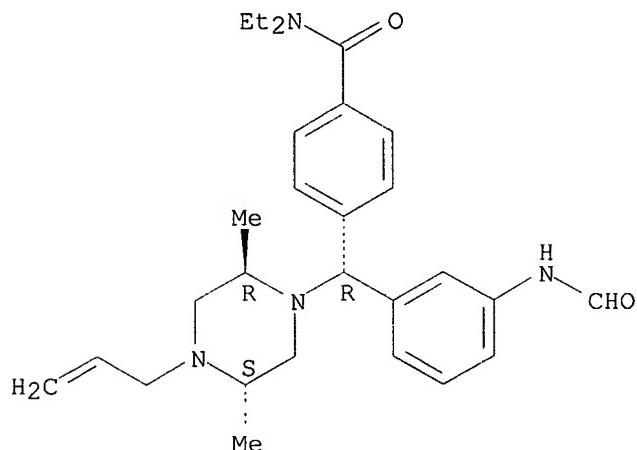
IT 155836-61-6

(reaction of, in preparation of analgesics)

RN 155836-61-6 USPATFULL

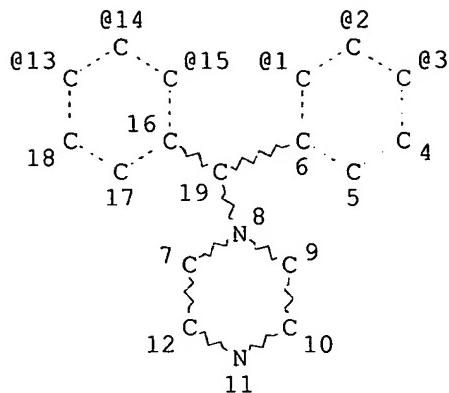
CN Benzamide, 4-[[2,5-dimethyl-4-(2-propenyl)-1-piperazinyl][3-(formylamino)phenyl]methyl]-N,N-diethyl-, monohydrochloride,
[1(R*),2α,5β]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

=> d que stat 111
 L7 STR



N @20 C~N~C=O
 24 21 @22 23

VPA 20-1/2/3 U
 VPA 22-13/14/15 U

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

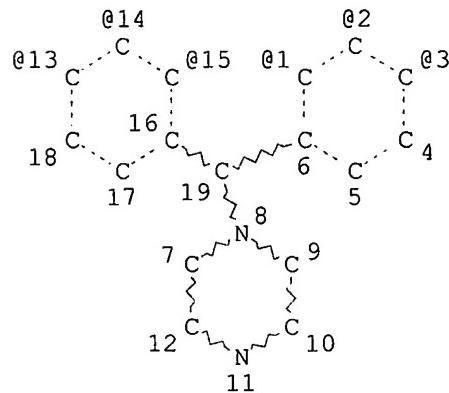
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

L9 309 SEA FILE=REGISTRY SSS FUL L7
 L10 6 SEA FILE=HCAPLUS ABB=ON L9
 L11 6 SEA FILE=HCAPLUS ABB=ON L10 AND (PRD<20050504 OR PD<20050504)

=> d que stat 112
 L7 STR



N @20 C~N~C=O
 24 21 @22 23

VPA 20-1/2/3 U
 VPA 22-13/14/15 U

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

Moore 10/533, 764

21/03/2006

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

L9 309 SEA FILE=REGISTRY SSS FUL L7
L10 6 SEA FILE=HCAPLUS ABB=ON L9
L12 10 SEA FILE=USPATFULL ABB=ON L10 AND (PRD<20050504 OR PD<20050504
)

=> d his ful

(FILE 'HOME' ENTERED AT 17:44:30 ON 21 MAR 2006)

FILE 'HCAPLUS' ENTERED AT 17:44:36 ON 21 MAR 2006

E BROWN WILLIAM/AU

L1 130 SEA ABB=ON "BROWN WILLIAM"/AU

E GRIFFIN ANDREW/AU

L2 27 SEA ABB=ON "GRIFFIN ANDREW"/AU

L3 16 SEA ABB=ON L1 AND L2

L4 5 SEA ABB=ON L3 AND ?PIPERAZINYL?

SELECT RN L4 4-5

FILE 'REGISTRY' ENTERED AT 17:45:57 ON 21 MAR 2006

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L6 5 SEA ABB=ON L4 AND L5

FILE 'REGISTRY' ENTERED AT 17:56:48 ON 21 MAR 2006

L7 STR

L8 16 SEA SSS SAM L7

L9 309 SEA SSS FUL L7

FILE 'HCAPLUS' ENTERED AT 18:01:32 ON 21 MAR 2006

L10 6 SEA ABB=ON L9

L11 6 SEA ABB=ON L10 AND (PRD<20050504 OR PD<20050504)

L12 FILE 'USPATFULL' ENTERED AT 18:02:11 ON 21 MAR 2006
10 SEA ABB=ON L10 AND (PRD<20050504 OR PD<20050504)

FILE HOME

*10 cts for
USPatfull*

FILE HCAPLUS

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FILE COVERS 1907 - 21 Mar 2006 VOL 144 ISS 13
FILE LAST UPDATED: 20 Mar 2006 (20060320/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 20 MAR 2006 HIGHEST RN 877371-73-8
DICTIONARY FILE UPDATES: 20 MAR 2006 HIGHEST RN 877371-73-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

FILE USPATFULL

Moore 10/533,764

21/03/2006

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 21 Mar 2006 (20060321/PD)
FILE LAST UPDATED: 21 Mar 2006 (20060321/ED)
HIGHEST GRANTED PATENT NUMBER: US7017190
HIGHEST APPLICATION PUBLICATION NUMBER: US2006059596
CA INDEXING IS CURRENT THROUGH 21 Mar 2006 (20060321/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 21 Mar 2006 (20060321/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2006
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2006

Inventor Search

Moore 10/533, 764

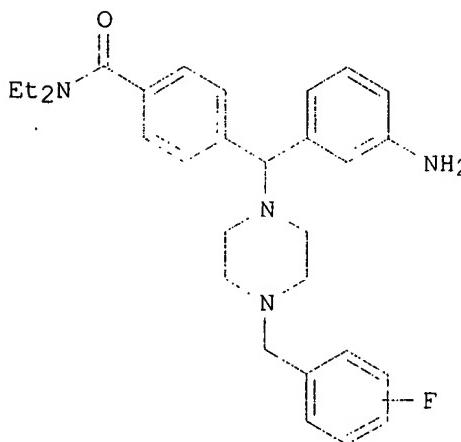
21/03/2006

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L6 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006:117149 HCAPLUS
 DOCUMENT NUMBER: 144:212801
 TITLE: Preparation of 1-benzyl-4-diarylalkylpiperazines as
 δ -opioid agonists.
 INVENTOR(S): Brown, William; Griffin, Andrew;
 Hudzik, Thomas; Maciag, Carla; Smagin, Gennady;
 Walpole, Christopher
 PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
 SOURCE: PCT Int. Appl., 43 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006014133	A1	20060209	WO 2005-SE1186	20050727
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 2006030569	A1	20060209	US 2005-243623	20051005
PRIORITY APPLN. INFO.:			SE 2004-1968	A 20040802
			US 2004-602363P	P 20040818
			WO 2005-SE1186	A1 20050727

GI



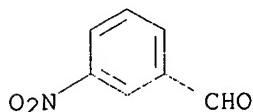
*Abraham
Balasub
Balasubramanian
Email*

AB Title compds. (I) were prepared Thus, N,N-di-Et 4-[(R)-(3-nitrophenyl)(1-piperazinyl)methyl]benzamide (preparation given) was stirred with 4-fluorobenzaldehyde and Na(AcO)3BH were stirred 20 h in C1CH2CH2Cl to give 71% nitro intermediate, which was refluxed 24 h with Fe in EtOH/THF/aqueous NH4Cl to give 90% 4-[(R)-(3-aminophenyl)[4-(4-fluorobenzyl)piperazin-1-yl)methyl]-N,N-diethylbenzamide. This bound to delta receptors with IC50 = 0.587.

IT 99-61-6, 3-Nitrobenzaldehyde 109-89-7, Diethylamine, reactions 1711-02-0, 4-Iodobenzoyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of benzyl diarylmethyl piperazines as δ -opioid agonists)

RN 99-61-6 HCPLUS

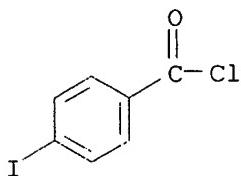
CN Benzaldehyde, 3-nitro- (9CI) (CA INDEX NAME)



RN 109-89-7 HCPLUS
CN Ethanamine, N-ethyl- (9CI) (CA INDEX NAME)

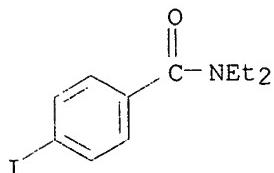


RN 1711-02-0 HCPLUS
CN Benzoyl chloride, 4-iodo- (9CI) (CA INDEX NAME)

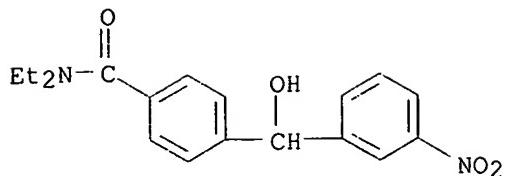


IT 77350-52-8P 691877-61-9P 691877-63-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of benzyl diarylmethyl piperazines as δ -opioid agonists)

RN 77350-52-8 HCPLUS
CN Benzamide, N,N-diethyl-4-iodo- (9CI) (CA INDEX NAME)

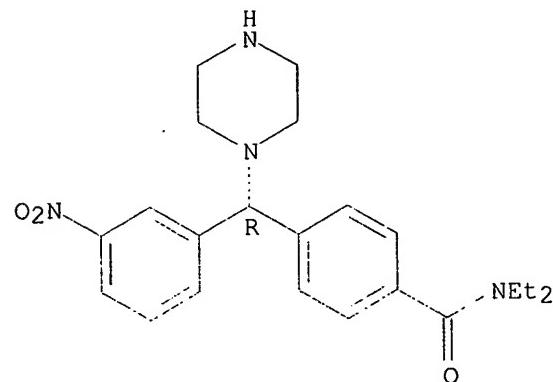


RN 691877-61-9 HCPLUS
CN Benzamide, N,N-diethyl-4-[hydroxy(3-nitrophenyl)methyl]- (9CI) (CA INDEX NAME)



RN 691877-63-1 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-(3-nitrophenyl)-1-piperazinylmethyl]- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 5 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:638860 HCPLUS
 DOCUMENT NUMBER: 143:153402
 TITLE: Preparation of diarylmethylpiperazines as δ receptor ligands for the treatment of pain
 INVENTOR(S): Brown, William; Griffin, Andrew
 PATENT ASSIGNEE(S): AstraZeneca AB, Swed.
 SOURCE: PCT Int. Appl., 69 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005066148	A1	20050721	WO 2005-SE14	20050105
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,				

AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
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MR, NE, SN, TD, TG

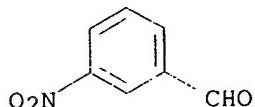
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GI

SE 2004-27

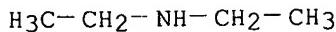
A 20040109

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

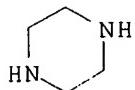
- AB Title compds. I [R1 = alkyl, alkenyl, cycloalkyl, etc.; R2 = H, alkyl, cycloalkyl, etc.; R3 = alkyl, cycloalkyl] and their pharmaceutically acceptable salts were prepared. For example, N-alkylation of piperazine II (R1 = H) with bromoethyl Me ether afforded the hCL salt of claimed diarylmethylpiperazine II (R1 = CH₂CH₂OCH₃) in 68% yield. In human δ receptor assays, certain examples of compds. I exhibited IC₅₀ values ranging from 0.2-3.7 nM, with an average of 1 nM (sic).
IT 99-61-6, 3-Nitrobenzaldehyde 109-89-7, reactions
110-85-0, Piperazine, reactions 1711-02-0, 4-Iodobenzoyl chloride 6482-24-2, 2-Bromoethyl methyl ether 7051-34-5, Bromomethylcyclopropane 36865-41-5, 1-Bromo-3-methoxypropane
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of diarylmethylpiperazines as δ receptor ligands for treatment of pain)
RN 99-61-6 HCPLUS
CN Benzaldehyde, 3-nitro- (9CI) (CA INDEX NAME)



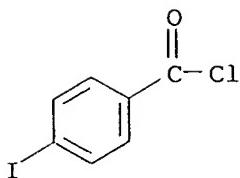
- RN 109-89-7 HCPLUS
CN Ethanamine, N-ethyl- (9CI) (CA INDEX NAME)



- RN 110-85-0 HCPLUS
CN Piperazine (8CI, 9CI). (CA INDEX NAME)



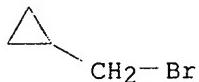
- RN 1711-02-0 HCPLUS
CN Benzoyl chloride, 4-iodo- (9CI) (CA INDEX NAME)



RN 6482-24-2 HCAPLUS
 CN Ethane, 1-bromo-2-methoxy- (9CI) (CA INDEX NAME)

Br—CH₂—CH₂—O—CH₃

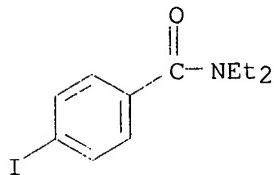
RN 7051-34-5 HCAPLUS
 CN Cyclopropane, (bromomethyl)- (7CI, 8CI, 9CI) (CA INDEX NAME)



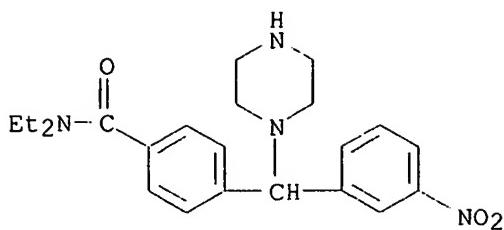
RN 36865-41-5 HCAPLUS
 CN Propane, 1-bromo-3-methoxy- (9CI) (CA INDEX NAME)

Br—(CH₂)₃—O—Me

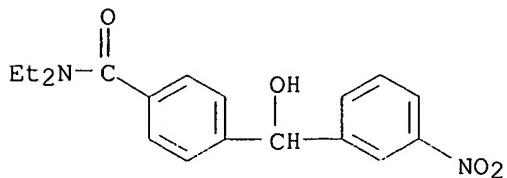
IT 77350-52-8P, 4-Iodo-N,N-diethylbenzamide 477191-80-3P,
 N,N-Diethyl-4-[(3-nitrophenyl)(1-piperazinyl)methyl]benzamide
 691877-61-9P, 4-[Hydroxy(3-nitrophenyl)methyl]-N,N-
 diethylbenzamide 691877-62-0P 691877-63-1P
 691878-34-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation of diarylmethylpiperazines as δ receptor ligands for
 treatment of pain)
 RN 77350-52-8 HCAPLUS
 CN Benzamide, N,N-diethyl-4-iodo- (9CI) (CA INDEX NAME)



RN 477191-80-3 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(3-nitrophenyl)-1-piperazinylmethyl]- (9CI) (CA
 INDEX NAME)

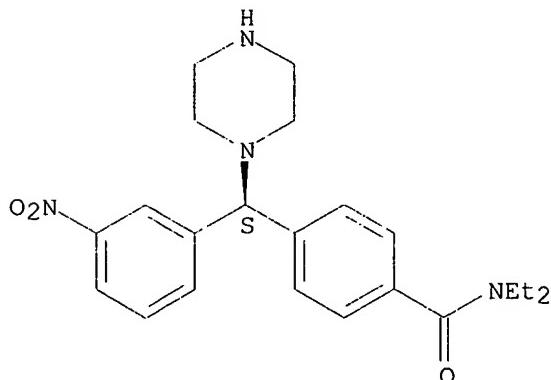


RN 691877-61-9 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[hydroxy(3-nitrophenyl)methyl]- (9CI) (CA INDEX NAME)



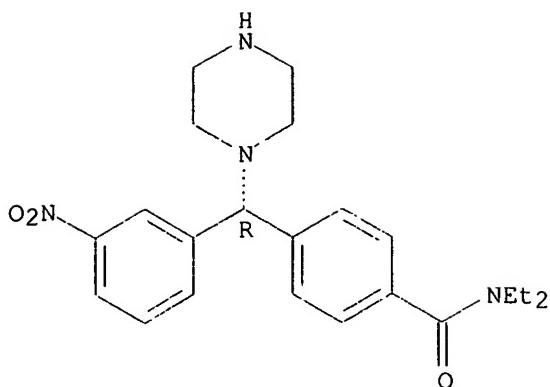
RN 691877-62-0 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-(3-nitrophenyl)-1-piperazinylmethyl]- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 691877-63-1 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-(3-nitrophenyl)-1-piperazinylmethyl]- (9CI)
 (CA INDEX NAME)

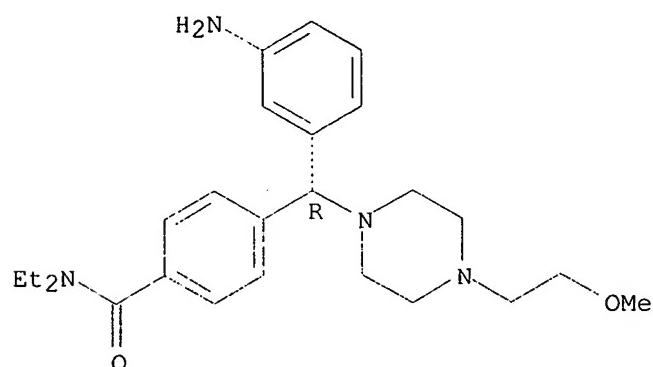
Absolute stereochemistry. Rotation (-).



RN 691878-34-9 HCAPLUS

CN Benzamide, 4-[(R)-(3-aminophenyl)[4-(2-methoxyethyl)-1-piperazinyl]methyl]-
N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:412932 HCAPLUS

DOCUMENT NUMBER: 140:423709

TITLE: Preparation of N-[4-(phenylpiperazinylmethyl)
phenyl]carbamates for treatment of pain, anxiety, or
gastrointestinal disordersINVENTOR(S): Brown, William; Griffin, Andrew;
Jones, Paul; Page, Daniel; Plobeck, Niklas; Walpole,
Christopher

PATENT ASSIGNEE(S): AstraZeneca AB, Swed.

SOURCE: PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2004041802	A1	20040521	WO 2003-SE1707	20031105
WO 2004041802	C1	20050310		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2502732	AA	20040521	CA 2003-2502732	20031105
AU 2003278665	A1	20040607	AU 2003-278665	20031105
EP 1562924	A1	20050817	EP 2003-770198	20031105
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
BR 2003015995	A	20050927	BR 2003-15995	20031105
NO 2005002698	A	20050606	NO 2005-2698	20050606
PRIORITY APPLN. INFO.:			SE 2002-3303	A 20021107
			WO 2003-SE1707	W 20031105

OTHER SOURCE(S): MARPAT 140:423709

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [wherein R1 = (un)substituted (hetero)aryl(alkyl); R2 and R3 = independently H or (un)substituted (cyclo)alkyl; or pharmaceutically acceptable salts, diastereomers, enantiomers, or mixts. thereof] were prepared as opioid δ receptor ligands. For example, 4-carboxybenzaldehyde was amidated with diethylamine using SOCl₂ in CH₂Cl₂ to give N,N-diethyl-4-formylbenzamide (90%). Coupling of the amide with N-Boc-piperazine in the presence of benzotriazole in toluene, followed by reaction with 3-bromophenylzinc iodide in THF, afforded tert-Bu 4-[(3-bromophenyl)[4-[(diethylamino)carbonyl]phenyl]methyl]-1-piperazinecarboxylate (33%). Coupling with Me carbamate (62%) using xantphos, Cs₂CO₃, and Pd2(dba)₃ in dioxane, deprotection (89%) with TFA in CH₂Cl₂, and chiral HPLC separation of the enantiomers provided (-)-[3-[(4-[(diethylamino)carbonyl]phenyl)-1-piperazinylmethyl]phenyl]carbamic acid Me ester. Reaction of the piperazine with benzaldehyde in the presence of NaBH(OAc)₃ in CH₂Cl₂ gave (R)-II. In binding assays using human 293S cells expressing cloned human opioid receptors and neomycin resistance, (R)-II and ten other exemplified compds. exhibited strong binding to the δ receptor with IC₅₀ values in the range of 0.25-0.74 nM and showed some activity toward the κ (IC₅₀ = 247-1636 nM) and μ (IC₅₀ = 93-1100 nM) receptors. In functional assays, (R)-II demonstrated δ receptor agonist activity by activating the binding of GTP to G-proteins. Thus, I and their pharmaceutical compns. are useful in therapy, in particular for the treatment of gastrointestinal disorders, anxiety, or pain (no data).

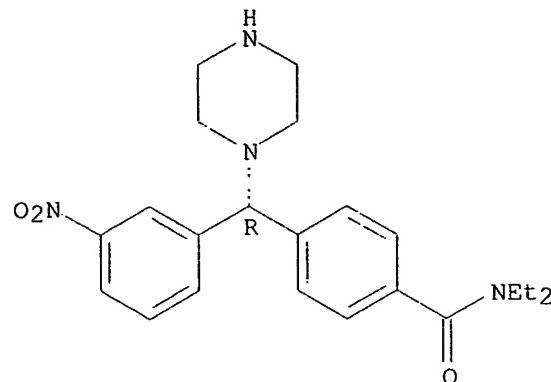
IT 691877-63-1P

RL: PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of N-[(phenyl)piperazinylmethyl]phenyl]carbamates as δ receptor agonists for treatment of pain, anxiety, or gastrointestinal disorders)

RN 691877-63-1 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-(3-nitrophenyl)-1-piperazinylmethyl]- (9CI)
(CA INDEX NAME)

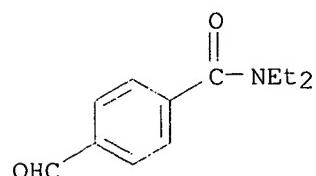
Absolute stereochemistry. Rotation (-).



IT 58287-77-7P, N,N-Diethyl-4-formylbenzamide 77350-52-8P,
4-Iodo-N,N-diethylbenzamide 477191-80-3P, N,N-Diethyl-4-[(3-nitrophenyl)(1-piperazinyl)methyl]benzamide 691877-61-9P
, 4-[Hydroxy(3-nitrophenyl)methyl]-N,N-diethylbenzamide
691877-64-2P 691877-65-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(intermediate; preparation of N-[(phenylpiperazinylmethyl)
phenyl]carbamates as δ receptor agonists for treatment of pain,
anxiety, or gastrointestinal disorders)

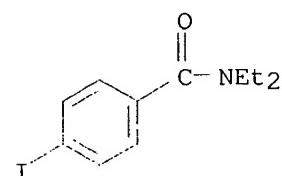
RN 58287-77-7 HCPLUS

CN Benzamide, N,N-diethyl-4-formyl- (9CI) (CA INDEX NAME)



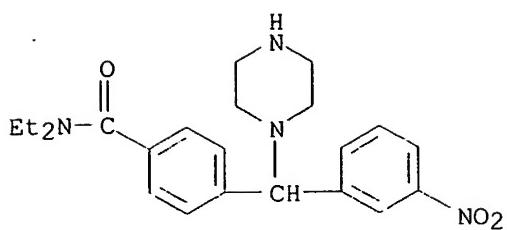
RN 77350-52-8 HCPLUS

CN Benzamide, N,N-diethyl-4-iodo- (9CI) (CA INDEX NAME)

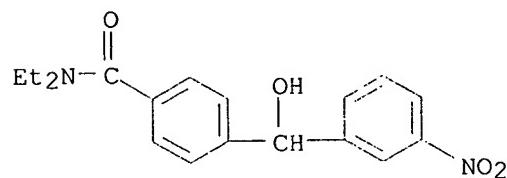


RN 477191-80-3 HCPLUS

CN Benzamide, N,N-diethyl-4-[(3-nitrophenyl)-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

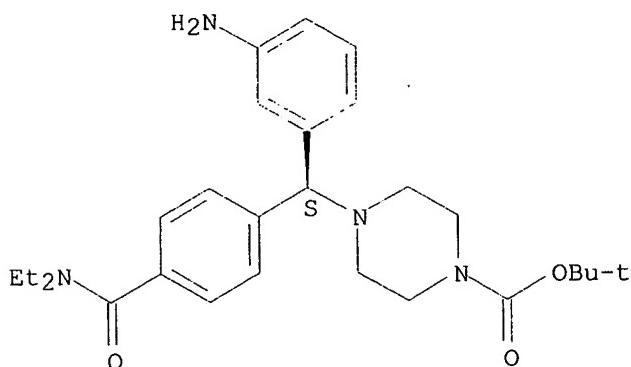


RN 691877-61-9 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[hydroxy(3-nitrophenyl)methyl]- (9CI) (CA INDEX NAME)



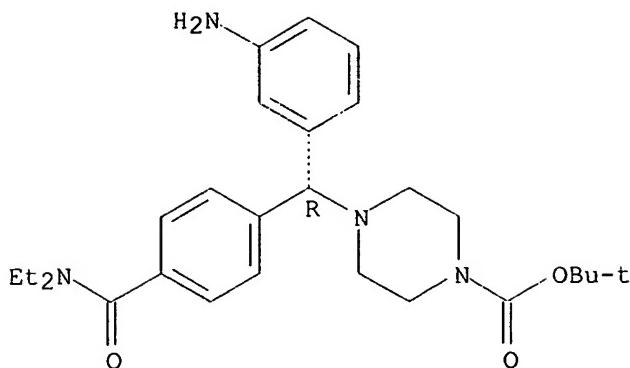
RN 691877-64-2 HCAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[(S)-(3-aminophenyl)[4-(diethylamino)carbonyl]phenyl]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 691877-65-3 HCAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[(R)-(3-aminophenyl)[4-(diethylamino)carbonyl]phenyl]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

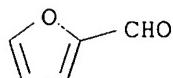


IT 98-01-1, 2-Furaldehyde, reactions 98-03-3,
 2-Thiophenecarboxaldehyde 99-61-6, 3-Nitrobenzaldehyde
 100-52-7, Benzaldehyde, reactions 109-89-7,
 Diethylamine, reactions 110-85-0, Piperazine, reactions
 498-60-2, 3-Furaldehyde 498-62-4, 3-
 Thiophenecarboxaldehyde 619-66-9, 4-Carboxybenzaldehyde
 1711-02-0, 4-Iodobenzoyl chloride 10200-59-6,
 Thiazole-2-carboxaldehyde 57260-71-6, N-Boc-piperazine
 691877-62-0

RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of N-[*(phenylpiperazinylmethyl)phenyl*]carbamates as
δ receptor agonists for treatment of pain, anxiety, or
 gastrointestinal disorders)

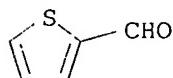
RN 98-01-1 HCPLUS

CN 2-Furancarboxaldehyde (9CI) (CA INDEX NAME)



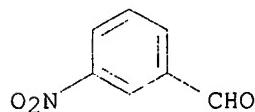
RN 98-03-3 HCPLUS

CN 2-Thiophenecarboxaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



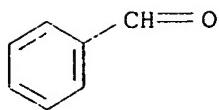
RN 99-61-6 HCPLUS

CN Benzaldehyde, 3-nitro- (9CI) (CA INDEX NAME)



RN 100-52-7 HCPLUS

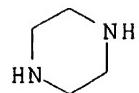
CN Benzaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



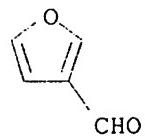
RN 109-89-7 HCAPLUS
 CN Ethanamine, N-ethyl- (9CI) (CA INDEX NAME)



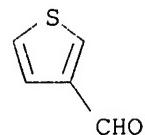
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 CN Piperazine (8CI, 9CI) (CA INDEX NAME)



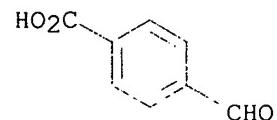
RN 498-60-2 HCAPLUS
 CN 3-Furancarboxaldehyde (9CI) (CA INDEX NAME)



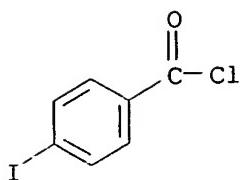
RN 498-62-4 HCAPLUS
 CN 3-Thiophenecarboxaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



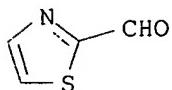
RN 619-66-9 HCAPLUS
 CN Benzoic acid, 4-formyl- (9CI) (CA INDEX NAME)



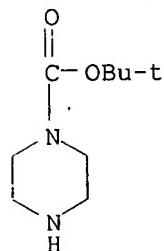
RN 1711-02-0 HCAPLUS
 CN Benzoyl chloride, 4-iodo- (9CI) (CA INDEX NAME)



RN 10200-59-6 HCAPLUS
 CN 2-Thiazolecarboxaldehyde (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

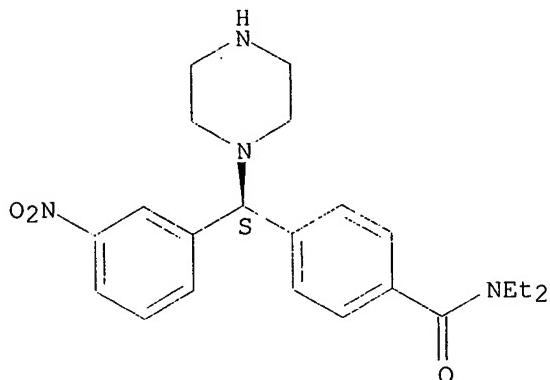


RN 57260-71-6 HCAPLUS
 CN 1-Piperazinecarboxylic acid, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 691877-62-0 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-(3-nitrophenyl)-1-piperazinylmethyl]- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L6 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:412931 HCAPLUS
 DOCUMENT NUMBER: 140:423708
 TITLE: Preparation of 4-(phenylpiperazinylmethyl)

)benzamides for treatment of pain, anxiety, or
gastrointestinal disorders
INVENTOR(S): Brown, William; Griffin, Andrew
PATENT ASSIGNEE(S): AstraZeneca AB, Swed.
SOURCE: PCT Int. Appl., 127 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004041801	A1	20040521	WO 2003-SE1706	20031105
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003278664	A1	20040607	AU 2003-278664	20031105
EP 1562923	A1	20050817	EP 2003-770197	20031105
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006508946	T2	20060316	JP 2004-549775	20031105
PRIORITY APPLN. INFO.:			SE 2002-3302	A 20021107
			WO 2003-SE1706	W 20031105

OTHER SOURCE(S): MARPAT 140:423708
GI

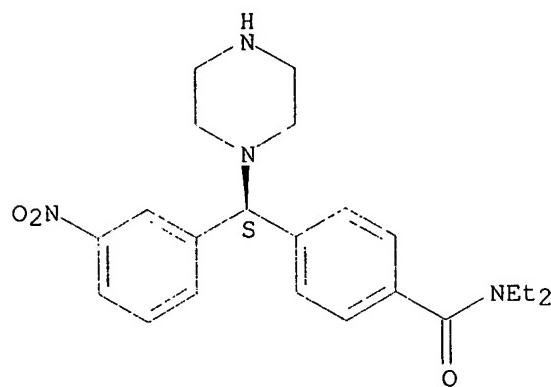
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *.

AB Title compds. I [wherein R1 = (un)substituted alkyl or cycloalkyl(alkyl), (hetero)aryl, R8CO, R8SO₂, R8SO, R8NHCO, R8CS, or R8NHCS; ; R2 = H or (un)substituted alkyl; R3 = H or (un)substituted alkoxy carbonyl, alkyl, or cycloalkyl(alkyl); R8 = (un)substituted alkyl, (hetero)aryl(alkyl), or cycloalkyl(alkyl); or pharmaceutically acceptable salts thereof] were prepared as opioid δ receptor ligands. For example, amidation of 4-iodobenzoyl chloride with Et₂NH using TEA in CH₂C₁₂ provided 4-iodo-N,N-diethylbenzamide, which was coupled with 3-nitrobenzaldehyde in the presence of BuLi in THF to give 4-[hydroxy(3-nitrophenyl)methyl]-N,N-diethylbenzamide (50%). Reaction with thionyl bromide in CH₂C₁₂, followed by substitution with piperazine in MeCN and enantiomeric separation using di-p-toluoyl-D-tartaric acid, afforded N,N-diethyl-4-[(S)-(3-nitrophenyl)(1-piperazinyl)methyl]benzamide. N-protection with di-tert-Bu dicarbonate, alkylation with 2-thiazolecarboxaldehyde in the presence of Na triacetoxymethane in C₁CH₂CH₂Cl, and deprotection using TFA gave (S)-II. In binding assays using human 293S cells expressing cloned human opioid receptors and neomycin resistance, most compds. of the invention exhibited activity toward the δ receptor with IC₅₀ values in the range of 0.15 nM - 30.4 nM with an average of 2.30 nM. Exemplified compds. also showed some activity toward the κ and μ receptors with IC₅₀ values in the ranges of 320 nM - 8457 nM and 16 nM - 9560 nM,

resp. Thus, I and their pharmaceutical compns. are useful in therapy, in particular for the treatment of gastrointestinal disorders, anxiety, or pain (no data).

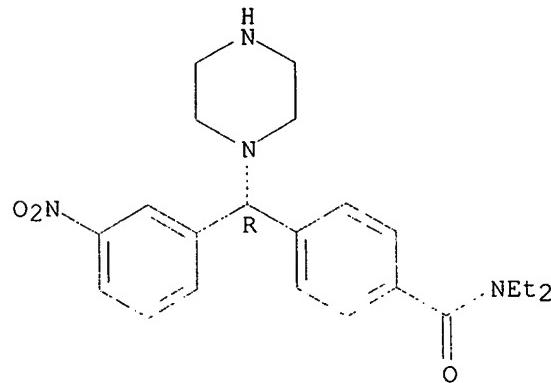
- IT 691877-62-0P, (S)-N,N-Diethyl-4-[(3-nitrophenyl)(1-piperazinyl)methyl]benzamide 691877-63-1P,
 (R)-N,N-Diethyl-4-[(3-nitrophenyl)(1-piperazinyl)methyl]benzamide
 RL: PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; preparation of (phenylpiperazinylmethyl)benzamides as δ receptor agonists for treatment of pain, anxiety, or gastrointestinal disorders)
- RN 691877-62-0 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-(3-nitrophenyl)-1-piperazinylmethyl]- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



- RN 691877-63-1 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-(3-nitrophenyl)-1-piperazinylmethyl]- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



- IT 77350-52-8P, 4-Iodo-N,N-diethylbenzamide 477191-80-3P,
 N,N-Diethyl-4-[(3-nitrophenyl)(1-piperazinyl)methyl]benzamide
 691877-61-9P, 4-[Hydroxy(3-nitrophenyl)methyl]-N,N-diethylbenzamide 691877-64-2P, tert-Butyl (S)-4-[(3-

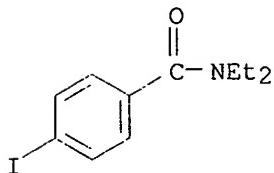
aminophenyl) [4-[(diethylamino)carbonyl]phenyl]methyl]piperazine-1-carboxylate **691877-65-3P**, tert-Butyl (R)-4-[(3-aminophenyl)[4-[(diethylamino)carbonyl]phenyl]methyl]piperazine-1-carboxylate **691877-66-4P**, tert-Butyl (R)-4-[(3-anilinophenyl)[4-[(diethylamino)carbonyl]phenyl]methyl]piperazine-1-carboxylate **691877-67-5P**, tert-Butyl (S)-4-[(3-anilinophenyl)[4-[(diethylamino)carbonyl]phenyl]methyl]piperazine-1-carboxylate **691878-43-0P**.

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of (phenylpiperazinylmethyl)benzamides as δ receptor agonists for treatment of pain, anxiety, or gastrointestinal disorders)

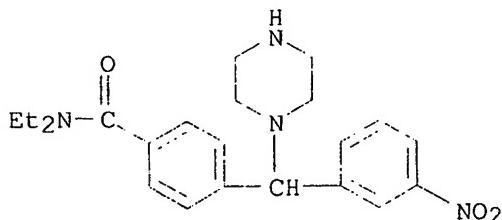
RN 77350-52-8 HCPLUS

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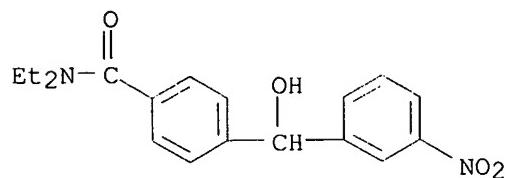
RN 477191-80-3 HCPLUS

CN Benzamide, N,N-diethyl-4-[(3-nitrophenyl)-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)



RN 691877-61-9 HCPLUS

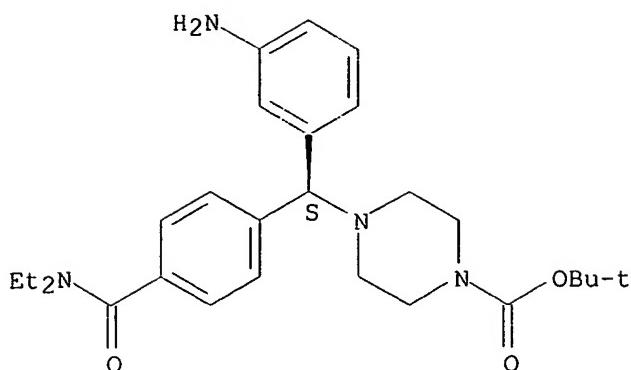
CN Benzamide, N,N-diethyl-4-[hydroxy(3-nitrophenyl)methyl]- (9CI) (CA INDEX NAME)



RN 691877-64-2 HCPLUS

CN 1-Piperazinecarboxylic acid, 4-[(S)-(3-aminophenyl)[4-[(diethylamino)carbonyl]phenyl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

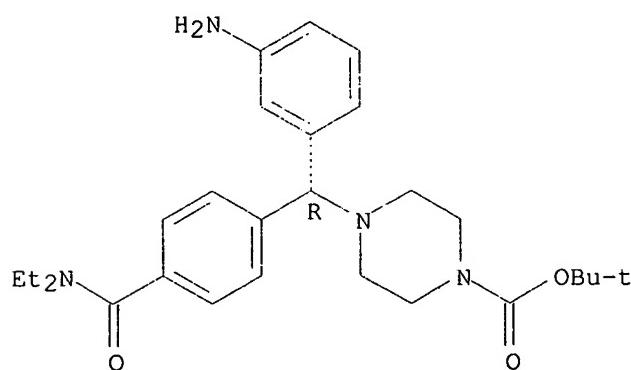
Absolute stereochemistry.



RN 691877-65-3 HCPLUS

CN 1-Piperazinecarboxylic acid, 4-[(R)-(3-aminophenyl)[4-(diethylamino)carbonyl]phenyl]methyl-, 1,1-dimethylethyl ester (9CI)
(CA INDEX NAME)

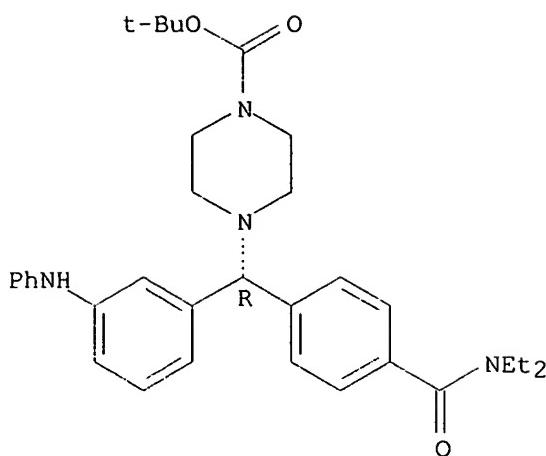
Absolute stereochemistry.



RN 691877-66-4 HCPLUS

CN 1-Piperazinecarboxylic acid, 4-[(R)-[4-(diethylamino)carbonyl]phenyl][3-(phenylamino)phenyl]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

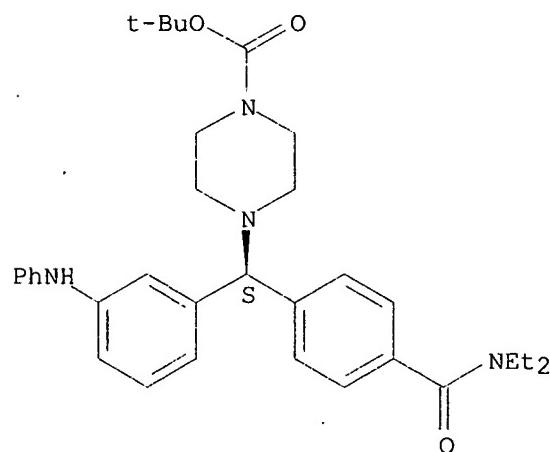
Absolute stereochemistry.



RN 691877-67-5 HCPLUS

CN 1-Piperazinecarboxylic acid, 4-[(S)-[4-[(diethylamino)carbonyl]phenyl][3-(phenylamino)phenyl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

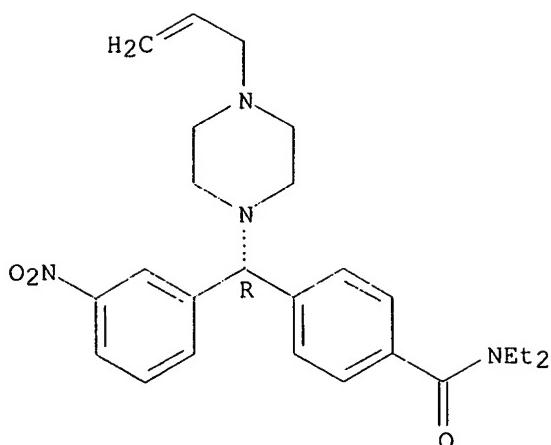
Absolute stereochemistry.



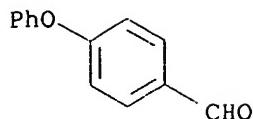
RN 691878-43-0 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-(3-nitrophenyl)[4-(2-propenyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)

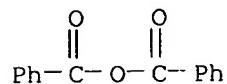
Absolute stereochemistry.



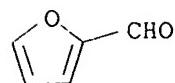
- IT 67-36-7, 4-Phenoxybenzaldehyde 93-97-0, Benzoic anhydride 98-01-1, 2-Furaldehyde, reactions 98-03-3, 2-Thiophenecarboxaldehyde 98-89-5, Cyclohexanecarboxylic acid 99-61-6, 3-Nitrobenzaldehyde 100-52-7, Benzaldehyde, reactions 103-71-9, Phenyl isocyanate, reactions 103-72-0, Phenyl isothiocyanate 103-80-0, Phenylacetyl chloride 106-38-7, 4-Bromotoluene 106-95-6, Allyl bromide, reactions 108-37-2, 3-Chlorobromobenzene 108-86-1, Bromobenzene, reactions 108-94-1, Cyclohexanone, reactions 110-85-0, Piperazine, reactions 120-92-3, Cyclopentanone 122-78-1, Phenylacetaldehyde 123-38-6, Propionaldehyde, reactions 331-25-9, 3-Fluorophenylacetic acid 455-19-6, 4-Trifluoromethylbenzaldehyde 498-60-2, 3-Furaldehyde 498-62-4, 3-Thiophenecarboxaldehyde 502-42-1, Cycloheptanone 502-49-8, Cyclooctanone 826-55-1, α,α -Dimethylphenylacetic acid 870-63-3, 1-Bromo-3-methylbut-2-ene 872-53-7, Cyclopentanecarboxaldehyde 939-97-9, 4-(1,1-Dimethylethyl)benzaldehyde 947-91-1, Diphenylacetaldehyde 1072-85-1, 2-Fluorobromobenzene 1192-88-7, 1-Cyclohexene-1-carboxaldehyde 1489-69-6, Cyclopropanecarboxaldehyde 1711-02-0, 4-Iodobenzoyl chloride 1939-99-7, α -Toluenesulfonyl chloride 2043-61-0, Cyclohexanecarboxaldehyde 2719-27-9, Cyclohexanecarbonyl chloride 3350-30-9, Cyclonanonone 5292-21-7, Cyclohexylacetic acid 5470-96-2, 2-Quinolinecarboxaldehyde 6482-24-2, 2-Bromoethyl methyl ether 7051-34-5, Bromomethylcyclopropane 10040-98-9, 4-(1H-Imidazol-1-yl)benzaldehyde 10200-59-6, Thiazole-2-carboxaldehyde 36865-41-5, 1-Bromo-3-methoxypropane 127406-55-7, 4-(3-Pyridinyl)benzaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of (phenylpiperazinylmethyl)benzamides as δ receptor agonists for treatment of pain, anxiety, or gastrointestinal disorders)
- RN 67-36-7 HCPLUS
- CN Benzaldehyde, 4-phenoxy- (9CI) (CA INDEX NAME)



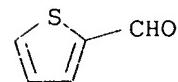
RN 93-97-0 HCAPLUS
 CN Benzoic acid, anhydride (9CI) (CA INDEX NAME)



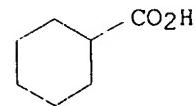
RN 98-01-1 HCAPLUS
 CN 2-Furancarboxaldehyde (9CI) (CA INDEX NAME)



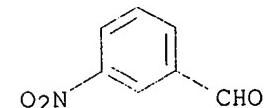
RN 98-03-3 HCAPLUS
 CN 2-Thiophenecarboxaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



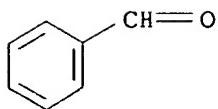
RN 98-89-5 HCAPLUS
 CN Cyclohexanecarboxylic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



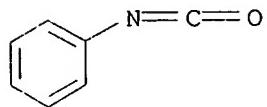
RN 99-61-6 HCAPLUS
 CN Benzaldehyde, 3-nitro- (9CI) (CA INDEX NAME)



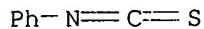
RN 100-52-7 HCAPLUS
 CN Benzaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



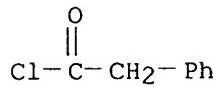
RN 103-71-9 HCPLUS
 CN Benzene, isocyanato- (9CI) (CA INDEX NAME)



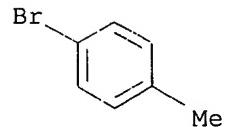
RN 103-72-0 HCPLUS
 CN Benzene, isothiocyanato- (9CI) (CA INDEX NAME)



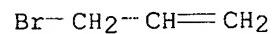
RN 103-80-0 HCPLUS
 CN Benzeneacetyl chloride (9CI) (CA INDEX NAME)



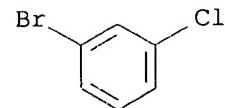
RN 106-38-7 HCPLUS
 CN Benzene, 1-bromo-4-methyl- (9CI) (CA INDEX NAME)



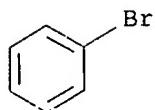
RN 106-95-6 HCPLUS
 CN 1-Propene, 3-bromo- (9CI) (CA INDEX NAME)



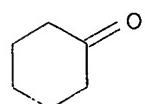
RN 108-37-2 HCPLUS
 CN Benzene, 1-bromo-3-chloro- (6CI, 8CI, 9CI) (CA INDEX NAME)



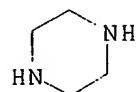
RN 108-86-1 HCAPLUS
 CN Benzene, bromo- (8CI, 9CI) (CA INDEX NAME)



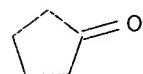
RN 108-94-1 HCAPLUS
 CN Cyclohexanone (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 110-85-0 HCAPLUS
 CN Piperazine (8CI, 9CI) (CA INDEX NAME)



RN 120-92-3 HCAPLUS
 CN Cyclopentanone (8CI, 9CI) (CA INDEX NAME)



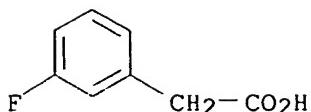
RN 122-78-1 HCAPLUS
 CN Benzeneacetaldehyde (9CI) (CA INDEX NAME)

Ph—CH₂—CHO

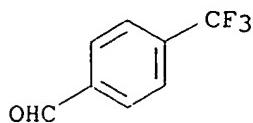
RN 123-38-6 HCAPLUS
 CN Propanal (9CI) (CA INDEX NAME)

H₃C—CH₂—CH=O

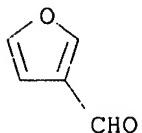
RN 331-25-9 HCAPLUS
 CN Benzeneacetic acid, 3-fluoro- (9CI) (CA INDEX NAME)



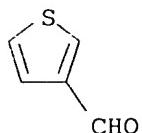
RN 455-19-6 HCPLUS
CN Benzaldehyde, 4-(trifluoromethyl)- (9CI) (CA INDEX NAME)



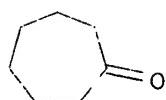
RN 498-60-2 HCPLUS
CN 3-Furancarboxaldehyde (9CI) (CA INDEX NAME)



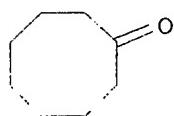
RN 498-62-4 HCPLUS
CN 3-Thiophenecarboxaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 502-42-1 HCPLUS
CN Cycloheptanone (8CI, 9CI) (CA INDEX NAME)

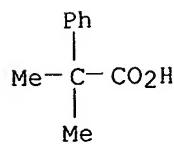


RN 502-49-8 HCPLUS
CN Cyclooctanone (8CI, 9CI) (CA INDEX NAME)



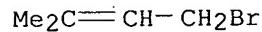
RN 826-55-1 HCPLUS

CN Benzeneacetic acid, α,α -dimethyl- (9CI) (CA INDEX NAME)



RN 870-63-3 HCPLUS

CN 2-Butene, 1-bromo-3-methyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



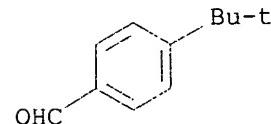
RN 872-53-7 HCPLUS

CN Cyclopentanecarboxaldehyde (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



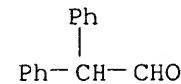
RN 939-97-9 HCPLUS

CN Benzaldehyde, 4-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



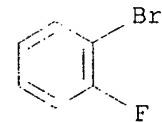
RN 947-91-1 HCPLUS

CN Benzeneacetaldehyde, α -phenyl- (9CI) (CA INDEX NAME)



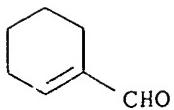
RN 1072-85-1 HCPLUS

CN Benzene, 1-bromo-2-fluoro- (7CI, 8CI, 9CI) (CA INDEX NAME)

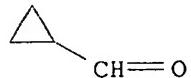


RN 1192-88-7 HCPLUS

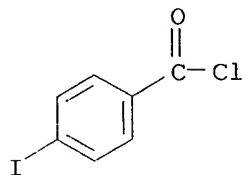
CN 1-Cyclohexene-1-carboxaldehyde (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



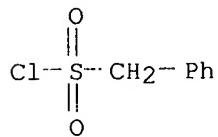
RN 1489-69-6 HCAPLUS
 CN Cyclopropanecarboxaldehyde (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



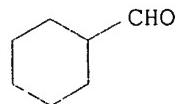
RN 1711-02-0 HCAPLUS
 CN Benzoyl chloride, 4-iodo- (9CI) (CA INDEX NAME)



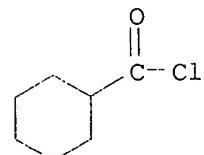
RN 1939-99-7 HCAPLUS
 CN Benzenemethanesulfonyl chloride (9CI) (CA INDEX NAME)



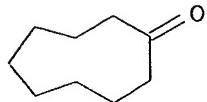
RN 2043-61-0 HCAPLUS
 CN Cyclohexanecarboxaldehyde (6CI, 8CI, 9CI) (CA INDEX NAME)



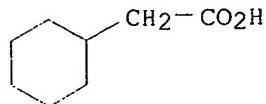
RN 2719-27-9 HCAPLUS
 CN Cyclohexanecarbonyl chloride (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



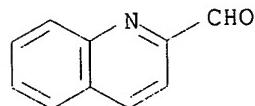
RN 3350-30-9 HCPLUS
 CN Cyclononanone (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



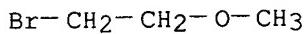
RN 5292-21-7 HCPLUS
 CN Cyclohexaneacetic acid (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



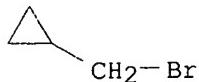
RN 5470-96-2 HCPLUS
 CN 2-Quinolinecarboxaldehyde (9CI) (CA INDEX NAME)



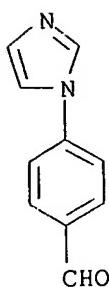
RN 6482-24-2 HCPLUS
 CN Ethane, 1-bromo-2-methoxy- (9CI) (CA INDEX NAME)



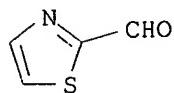
RN 7051-34-5 HCPLUS
 CN Cyclopropane, (bromomethyl)- (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 10040-98-9 HCPLUS
 CN Benzaldehyde, 4-(1H-imidazol-1-yl)- (9CI) (CA INDEX NAME)



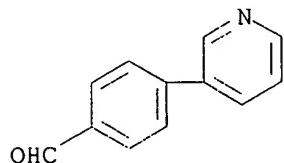
RN 10200-59-6 HCAPLUS
 CN 2-Thiazolecarboxaldehyde (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 36865-41-5 HCAPLUS
 CN Propane, 1-bromo-3-methoxy- (9CI) (CA INDEX NAME)

Br--(CH₂)₃-O--Me

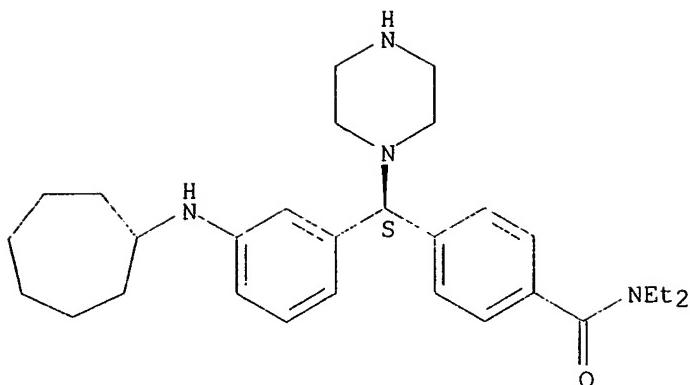
RN 127406-55-7 HCAPLUS
 CN Benzaldehyde, 4-(3-pyridinyl)- (9CI) (CA INDEX NAME)



IT 691878-39-4P, (S)-4-[(3-(Cycloheptylamino)phenyl)(piperazin-1-yl)methyl]-N,N-diethylbenzamide
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (δ receptor agonist; 00000prepn. of (phenylpiperazinylmethyl)benzamides as δ receptor agonists for treatment of pain, anxiety, or gastrointestinal disorders)

RN 691878-39-4 HCAPLUS
 CN Benzamide, 4-[(S)-[3-(cycloheptylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



- IT 691877-84-6P, (S)-N,N-Diethyl-4-[(piperazin-1-yl)[3-[(1,3-thiazol-2-ylmethyl)amino]phenyl]methyl]benzamide trifluoroacetate (1:1.6)
 691877-93-7P, (S)-4-[[3-(Cyclohexylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-16-7P,
 (S)-N,N-Diethyl-4-[(1-piperazinyl)[3-(propylamino)phenyl]methyl]benzamide trifluoroacetate (1:2.4)
 691878-17-8P, (S)-4-[[3-(Dipropylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate 691878-18-9P,
 (R)-N,N-Diethyl-4-[(1-piperazinyl)[3-(propylamino)phenyl]methyl]benzamide 691878-20-3P,
 (R)-N,N-Diethyl-4-[(1-piperazinyl)[3-(propylamino)phenyl]methyl]benzamide trifluoroacetate (1:3.6)
 691878-22-5P, (S)-N,N-Diethyl-4-[(1-piperazinyl)[3-[[4-(3-pyridinyl)phenyl]methyl]amino]phenyl]methyl]benzamide trifluoroacetate (1:3.3) 691878-24-7P, (S)-N,N-Diethyl-4-[[3-[[4-(1H-imidazol-1-yl)phenyl]methyl]amino]phenyl]piperazin-1-ylmethyl]benzamide trifluoroacetate (1:3) 691878-26-9P,
 (S)-N,N-Diethyl-4-[(1-piperazinyl)[3-[(2-quinolinylmethyl)amino]phenyl]methyl]benzamide trifluoroacetate (1:3.6)
 691878-28-1P, (R)-4-[[3-[(2,2-Diphenylethyl)amino]phenyl]piperazin-1-ylmethyl]-N,N-diethylbenzamide trifluoroacetate (1:2.8)
 691878-30-5P 691878-32-7P, (R)-N,N-Diethyl-4-[[3-[(4-phenoxyphenyl)methyl]amino]phenyl](piperazin-1-yl)methyl]benzamide trifluoroacetate (1:2.3) 691878-34-9P, (R)-4-[(3-Aminophenyl)[4-(2-methoxyethyl)piperazin-1-yl]methyl]-N,N-diethylbenzamide
 691878-35-0P, (R)-4-[(3-Aminophenyl)[4-(3-methoxypropyl)piperazin-1-yl]methyl]-N,N-diethylbenzamide 691878-38-3P,
 (R)-N,N-Diethyl-4-[(4-(3-methoxypropyl)-1-piperazinyl)[3-(propylamino)phenyl]methyl]benzamide trifluoroacetate (1:2)
 691878-42-9P, (R)-4-[(3-Aminophenyl)[4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethylbenzamide 691878-44-1P,
 (R)-4-[(3-Aminophenyl)[4-(3-methyl-2-butenyl)-1-piperazinyl]methyl]-N,N-diethylbenzamide 691878-45-2P, (R)-4-[(3-Aminophenyl)[4-(cyclopropylmethyl)-1-piperazinyl]methyl]-N,N-diethylbenzamide 691878-61-2P, (R)-N,N-Diethyl-4-[(piperazin-1-yl)[3-[(1,3-thiazol-2-ylmethyl)amino]phenyl]methyl]benzamide trifluoroacetate (1:2.4) 691878-62-3P, (S)-4-[[3-(Benzylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.6) 691878-63-4P, (R)-N,N-Diethyl-4-[(piperazin-1-yl)[3-[(thien-2-ylmethyl)amino]phenyl]methyl]benzamide trifluoroacetate (1:2) 691878-64-5P, (S)-N,N-Diethyl-4-[(piperazin-1-yl)[3-[(thien-2-ylmethyl)amino]phenyl]methyl]benzamide trifluoroacetate (1:3) 691878-65-6P, (S)-N,N-Diethyl-4-[[3-[(2-

furylmethyl)amino]phenyl] (piperazin-1-yl)methyl]benzamide trifluoroacetate (1:2.5) 691878-66-7P, (R)-N,N-Diethyl-4-[{3-[{(2-furylmethyl)amino]phenyl] (piperazin-1-yl)methyl}benzamide trifluoroacetate (1:3) 691878-67-8P, (R)-N,N-Diethyl-4-[{(piperazin-1-yl)[3-[(thien-3-ylmethyl)amino]phenyl]methyl}benzamide trifluoroacetate (1:2) 691878-68-9P, (S)-N,N-Diethyl-4-[{(piperazin-1-yl)[3-[(thien-3-ylmethyl)amino]phenyl]methyl}benzamide trifluoroacetate (1:2.8) 691878-69-0P, (R)-N,N-Diethyl-4-[{3-[{(2-furylmethyl)amino]phenyl] (piperazin-1-yl)methyl}benzamide trifluoroacetate (1:1.8) 691878-70-3P, (R)-N,N-Diethyl-4-[{3-[{(2-phenylethyl)amino]phenyl] (piperazin-1-yl)methyl}benzamide trifluoroacetate (1:1.9) 691878-71-4P, (R)-N,N-Diethyl-4-[{(piperazin-1-yl)[3-[(4-trifluoromethylbenzyl)amino]phenyl]methyl}benzamide trifluoroacetate (1:1.4) 691878-72-5P, (S)-4-[{3-[(Cyclohexylmethyl)amino]phenyl] (piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.8) 691878-73-6P, (R)-4-[{3-[(Cyclohex-1-en-1-ylmethyl)amino]phenyl] (piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.9) 691878-75-8P 691878-76-9P, (R)-4-[{3-(Cyclopentylamino)phenyl] (piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.6) 691878-77-0P 691878-78-1P, (R)-4-[{3-(Cyclooctylamino)phenyl] (piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.6) 691878-79-2P, (R)-4-[{3-(Cyclononylaminophenyl) (piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.6) 691878-80-5P, (S)-4-[{3-(Cyclohexylamino)phenyl] (piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.5) 691878-81-6P, (R)-4-[{3-(Benzoylamino)phenyl] (piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:1.6) 691878-82-7P, (R)-N,N-Diethyl-4-[{3-[(phenylacetyl)amino]phenyl] (piperazin-1-yl)methyl}benzamide trifluoroacetate (1:0.9) 691878-83-8P, (S)-4-[{3-(Benzoylamino)phenyl] (piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:1.9) 691878-84-9P, (S)-N,N-Diethyl-4-[{3-[(phenylacetyl)amino]phenyl] (piperazin-1-yl)methyl}benzamide trifluoroacetate (1:1.8) 691878-85-0P, (R)-N,N-Diethyl-4-[{3-[(2-methyl-2-phenylpropanoyl)amino]phenyl] (piperazin-1-yl)methyl}benzamide trifluoroacetate (1:1.5) 691878-86-1P, (R)-N,N-Diethyl-4-[{3-[(3-fluorophenyl)acetyl]amino}phenyl] (piperazin-1-yl)methyl}benzamide trifluoroacetate (1:1.4) 691878-87-2P, (R)-4-[{3-[(Benzylsulfonyl)amino]phenyl] (piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:0.6) 691878-89-4P, (S)-N,N-Diethyl-4-[{3-[(phenylsulfonyl)amino]phenyl] (piperazin-1-yl)methyl}benzamide trifluoroacetate (1:1.9) 691878-90-7P, (R)-4-[{3-[(Anilinocarbonyl)amino]phenyl] (piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2) 691878-91-8P, (R)-4-[{3-(Dipropylamino) (piperazin-1-yl)phenyl]methyl]-N,N-diethylbenzamide trifluoroacetate (1:4.2) 691878-92-9P, (R)-N,N-Diethyl-4-[{4-(2-propenyl)-1-piperazinyl} [3-(propylamino)phenyl]methyl]benzamide trifluoroacetate (1:2.7) 691878-93-0P, (R)-4-[{3-Aminophenyl}[4-(2-methoxyethyl)piperazin-1-yl]methyl]-N,N-diethylbenzamide hydrochloride (1:3.2) 691878-94-1P, (R)-4-[{3-Aminophenyl}[4-(3-methoxypropyl)piperazin-1-yl]methyl]-N,N-diethylbenzamide tetrahydrochloride 691878-95-2P, (R)-N,N-Diethyl-4-[{4-(2-methoxyethyl)-1-piperazinyl} [3-(propylamino)phenyl]methyl]benzamide trifluoroacetate (1:2.6) 691878-96-3P, (S)-4-[{3-(Cycloheptylaminophenyl) (piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.9) 691878-97-4P, (S)-4-[{3-(Cyclooctylaminophenyl) (piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.8) 691878-98-5P, (R)-4-[{3-Aminophenyl}[4-(2-propenyl)-1-

piperazinyl]methyl]-N,N-diethylbenzamide trihydrochloride
 691878-99-6P, (R)-4-[(3-Aminophenyl)[4-(3-methyl-2-but enyl)-1-piperazinyl]methyl]-N,N-diethylbenzamide hydrochloride (1:3.8)
 691879-00-2P, (R)-N,N-Diethyl-4-[[4-(2-propenyl)-1-piperazinyl][3-[(2-thienyl)methyl]amino]phenyl]methyl]benzamide trifluoroacetate (1:2.3) 691879-01-3P, (R)-N,N-Diethyl-4-[[4-(3-methyl-2-but enyl)-1-piperazinyl][3-[(2-thienyl)methyl]amino]phenyl]methyl]benzamide trifluoroacetate (1:1.4)
 691879-02-4P, (R)-4-[[4-(Cyclopropylmethyl)-1-piperazinyl][3-[(2-thienyl)methyl]amino]phenyl]methyl]-N,N-diethylbenzamide trifluoroacetate (1:2.4) 691879-03-5P, (S)-4-[[3-(Cyclohexylamino)phenyl][4-(cyclopropylmethyl)piperazin-1-yl]methyl]-N,N-diethylbenzamide hydrochloride (1:3.2) 691879-04-6P, (S)-4-[[3-(Cyclohexylamino)phenyl](4-propylpiperazin-1-yl)methyl]-N,N-diethylbenzamide hydrochloride (1:4.3) 691879-05-7P, (S)-4-[[3-(Cyclohexylamino)phenyl](4-ethylpiperazin-1-yl)methyl]-N,N-diethylbenzamide pentahydrochloride 691879-06-8P, (S)-4-[(4-Allylpiperazin-1-yl)[3-(cyclohexylamino)phenyl]methyl]-N,N-diethylbenzamide hydrochloride (1:4.4) 691879-07-9P, (S)-4-[[3-[(Cyclohexylcarbonyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide tetrahydrochloride 691879-08-0P, (S)-4-[[3-[(Cyclohexylacetyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide hydrochloride (1:0.4) 691879-09-1P, (S)-4-[[3-[Cyclohexyl(methyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide hydrochloride (1:4.1) 691879-10-4P, (R)-4-[[3-[Cyclohexyl(methyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide hydrochloride (1:4.8) 691879-17-1P, (R)-4-[(3-Aminophenyl)[4-(cyclopropylmethyl)-1-piperazinyl]methyl]-N,N-diethylbenzamide hydrochloride (1:3.8) 693259-21-1P, (R)-4-[[3-(Benzylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trifluoroacetate (1:1.8)
 RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (δ receptor agonist; preparation of (phenylpiperazinylmethyl)benzamides as δ receptor agonists for treatment of pain, anxiety, or gastrointestinal disorders)

RN 691877-84-6 HCPLUS

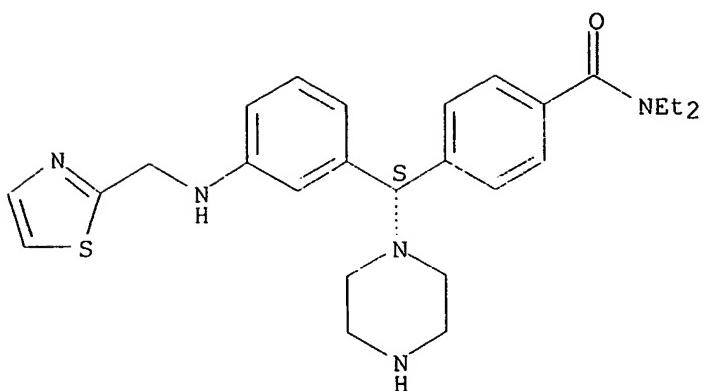
CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-[(2-thiazolylmethyl)amino]phenyl]methyl]-, trifluoroacetate (5:8) (9CI) (CA INDEX NAME)

CM 1

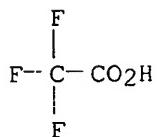
CRN 691877-68-6

CMF C26 H33 N5 O S

Absolute stereochemistry.

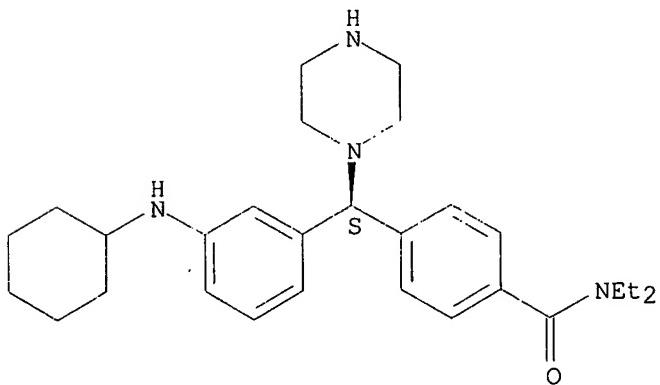


CM 2

CRN 76-05-1
CMF C2 H F3 O2

RN 691877-93-7 HCPLUS
 CN Benzamide, 4-[(S)-[3-(cyclohexylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



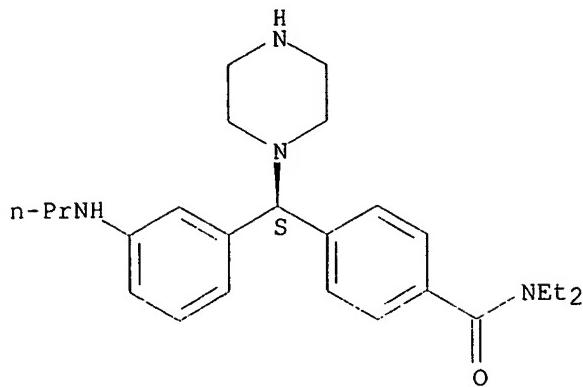
RN 691878-16-7 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-(propylamino)phenyl]methyl]-, trifluoroacetate (5:12) (9CI) (CA INDEX NAME)

CM 1

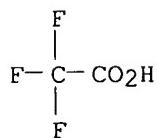
CRN 691878-14-5

CMF C25 H36 N4 O

Absolute stereochemistry. Rotation (+).



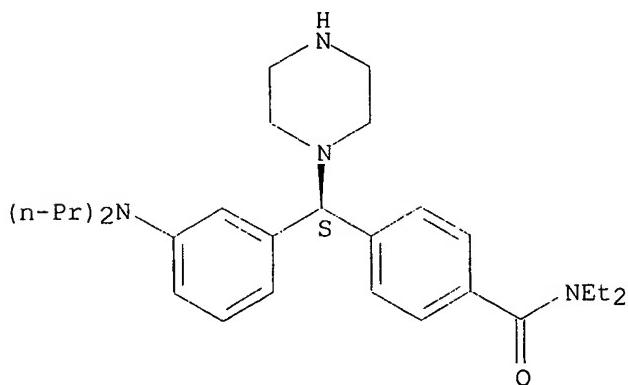
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-17-8 HCPLUS
CN Benzamide, 4-[(S)-[3-(dipropylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (9CI) (CA INDEX NAME)

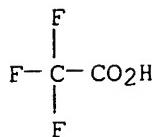
CM 1

CRN 691878-15-6
CMF C28 H42 N4 O

Absolute stereochemistry.

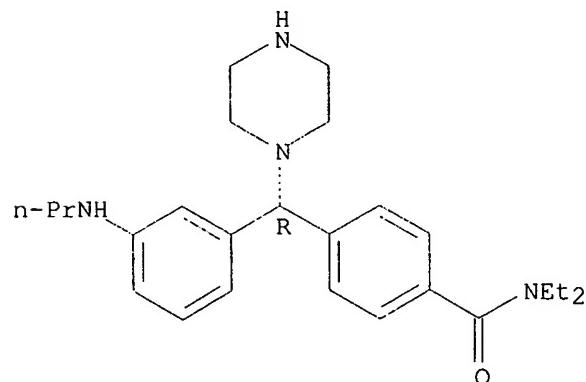


CM 2

CRN 76-05-1
CMF C2 H F3 O2

RN 691878-18-9 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl[3-(propylamino)phenyl]methyl]-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

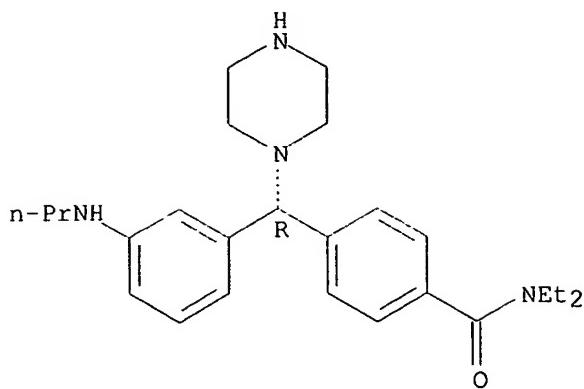


RN 691878-20-3 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl[3-(propylamino)phenyl]methyl]-
 , trifluoroacetate (5:18) (9CI) (CA INDEX NAME)

CM 1

CRN 691878-18-9
CMF C25 H36 N4 O

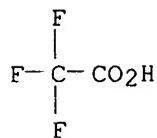
Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 691878-22-5 HCPLUS

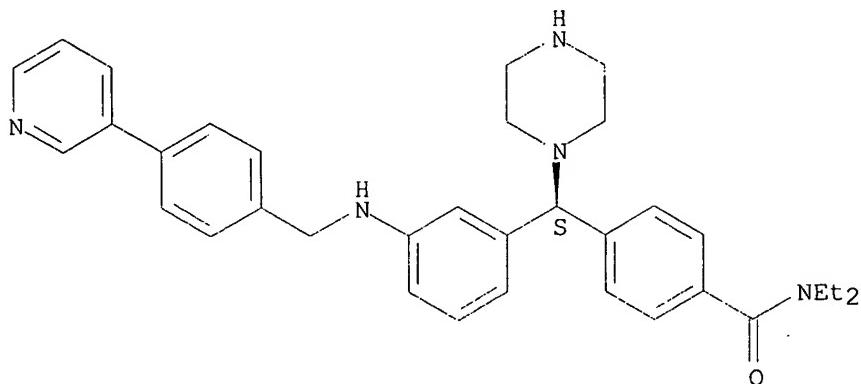
CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-[[[4-(3-pyridinyl)phenyl]methyl]amino]phenyl]methyl]-, trifluoroacetate (10:33) (9CI) (CA INDEX NAME)

CM 1

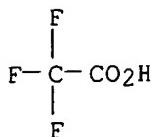
CRN 691878-21-4

CMF C34 H39 N5 O

Absolute stereochemistry. Rotation (+).



CM 2

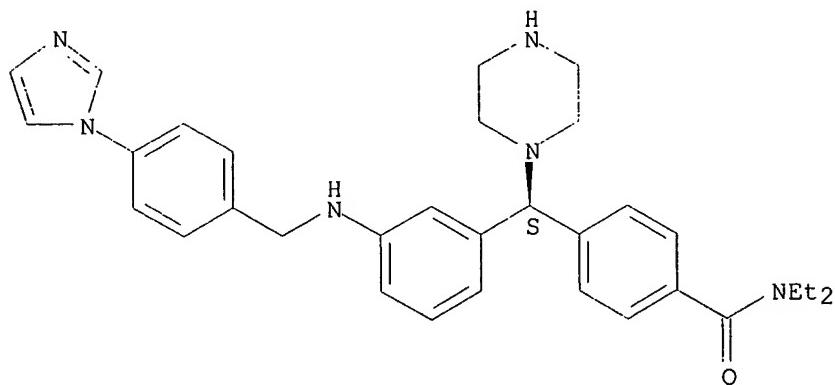
CRN 76-05-1
CMF C2 H F3 O2

RN 691878-24-7 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-[3-[[4-(1H-imidazol-1-yl)phenyl]methyl]amino]phenyl]-1-piperazinylmethyl]-, tris(trifluoroacetate) (9CI) (CA INDEX NAME)

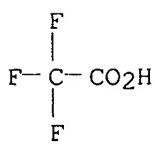
CM 1

CRN 691878-23-6
CMF C32 H38 N6 O

Absolute stereochemistry. Rotation (-).



CM 2

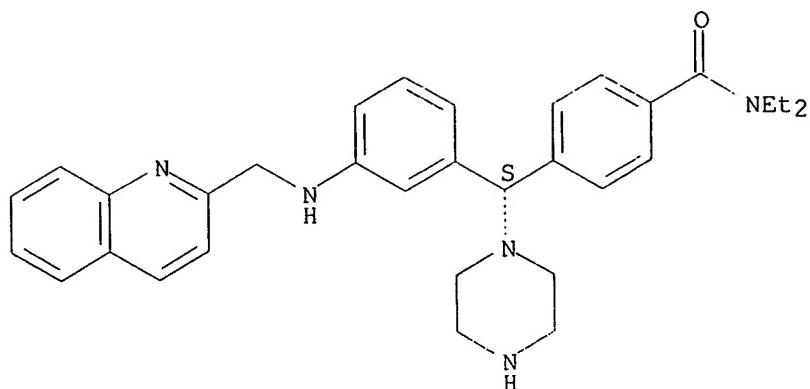
CRN 76-05-1
CMF C2 H F3 O2

RN 691878-26-9 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-[(2-quinolinylmethyl)amino]phenyl]methyl]-, trifluoroacetate (5:18) (9CI) (CA INDEX NAME)

CM 1

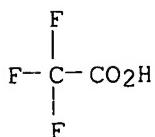
CRN 691878-25-8
 CMF C32 H37 N5 O

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

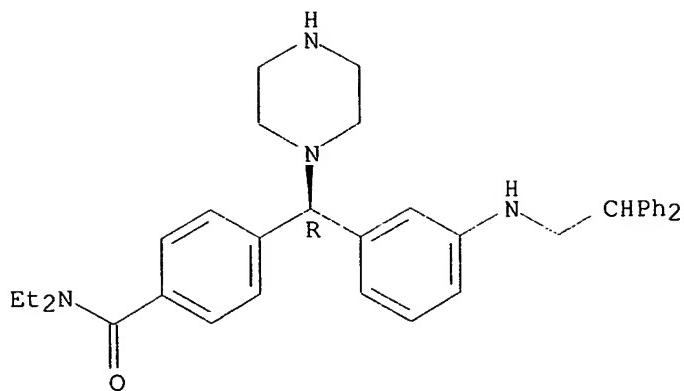


RN 691878-28-1 HCAPLUS
 CN Benzamide, 4-[(R)-[3-[(2,2-diphenylethyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (5:14) (9CI) (CA INDEX NAME)

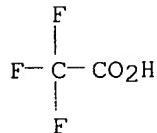
CM 1

CRN 691878-27-0
 CMF C36 H42 N4 O

Absolute stereochemistry. Rotation (+).



CM 2

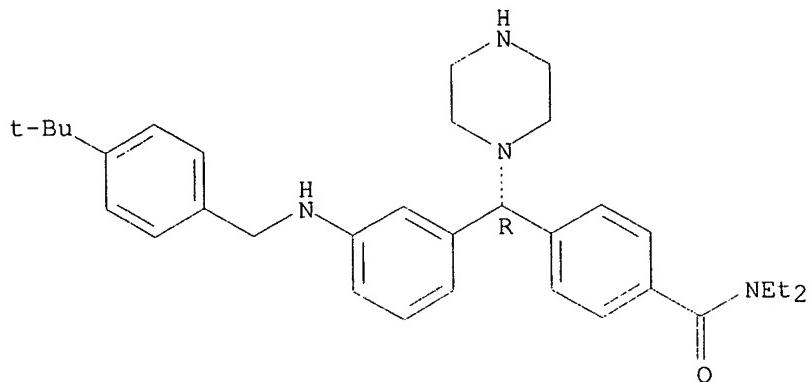
CRN 76-05-1
CMF C2 H F3 O2

RN 691878-30-5 HCPLUS
 CN Benzamide, 4-[(R)-[3-[[[4-(1,1-dimethylethyl)phenyl]methyl]amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (5:21) (9CI) (CA INDEX NAME)

CM 1

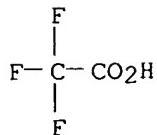
CRN 691878-29-2
CMF C33 H44 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

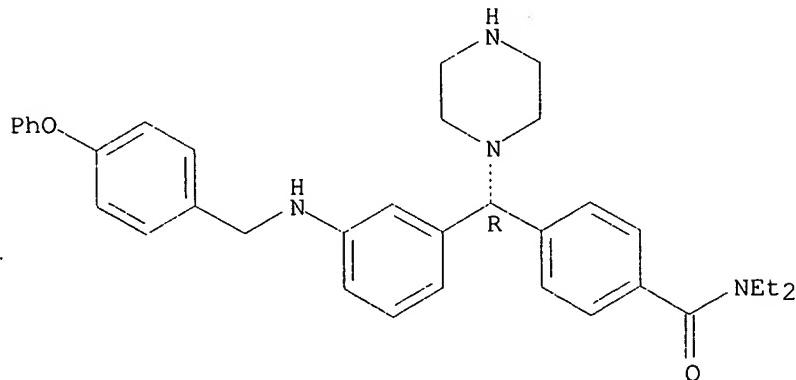


RN 691878-32-7 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-[3-[[4-phenoxyphenyl]methyl]amino]phenyl]-1-piperazinylmethyl-, trifluoroacetate (10:23) (9CI) (CA INDEX NAME)

CM 1

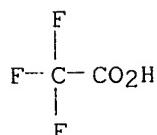
CRN 691878-31-6
 CMF C35 H40 N4 O2

Absolute stereochemistry. Rotation (-).



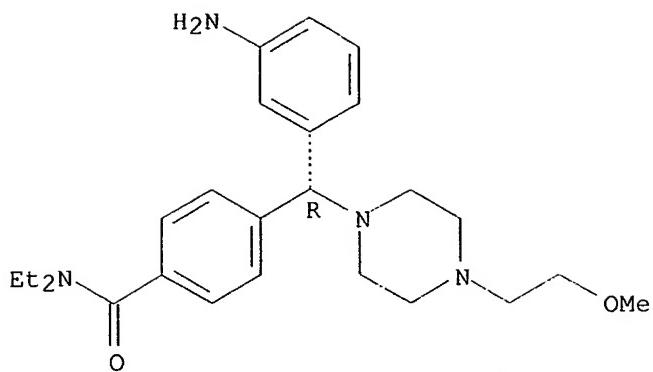
CM 2

CRN 76-05-1
 CMF C2 H F3 O2



RN 691878-34-9 HCAPLUS
 CN Benzamide, 4-[(R)-(3-aminophenyl)[4-(2-methoxyethyl)-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

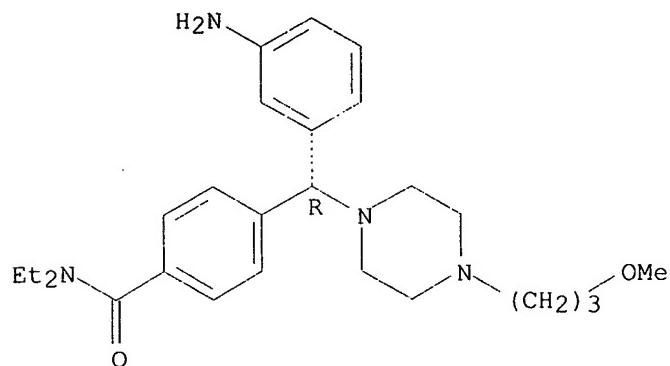
Absolute stereochemistry. Rotation (-).



RN 691878-35-0 HCPLUS

CN Benzamide, 4-[(R)-(3-aminophenyl)[4-(3-methoxypropyl)-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 691878-38-3 HCPLUS

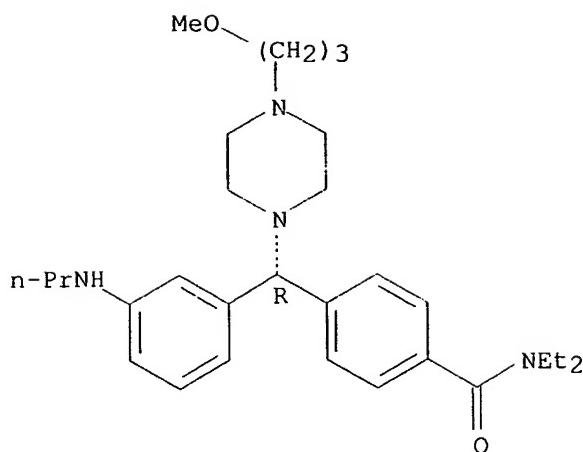
CN Benzamide, N,N-diethyl-4-[(R)-{4-(3-methoxypropyl)-1-piperazinyl}[3-(propylamino)phenyl]methyl]-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 691878-37-2

CMF C29 H44 N4 O2

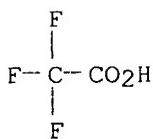
Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1

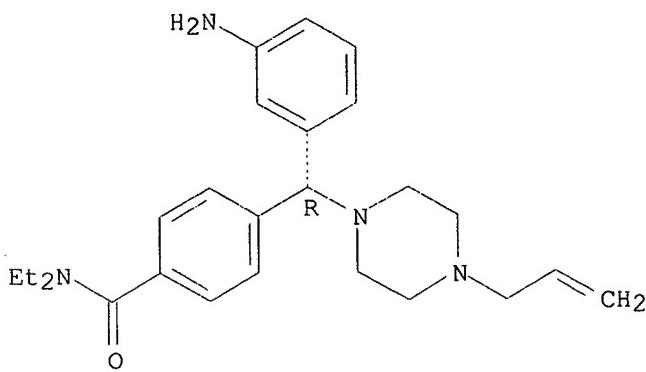
CMF C2 H F3 O2



RN 691878-42-9 HCAPLUS

CN Benzamide, 4-[(R) - (3-aminophenyl) {4- (2-propenyl) -1-piperazinyl}methyl] -N, N-diethyl- (9CI) (CA INDEX NAME)

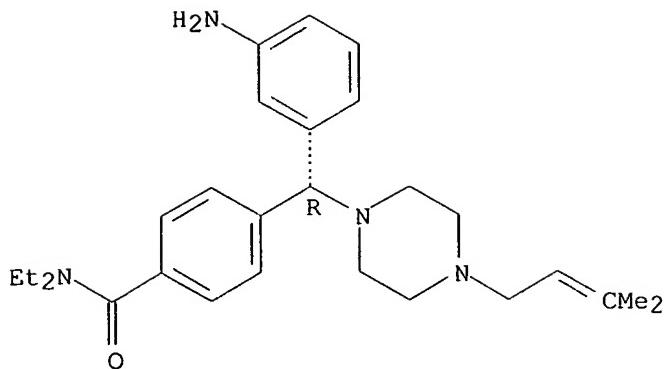
Absolute stereochemistry. Rotation (+).



RN 691878-44-1 HCAPLUS

CN Benzamide, 4-[(R) - (3-aminophenyl) [4- (3-methyl-2-but enyl) -1-piperazinyl]methyl] -N, N-diethyl- (9CI) (CA INDEX NAME)

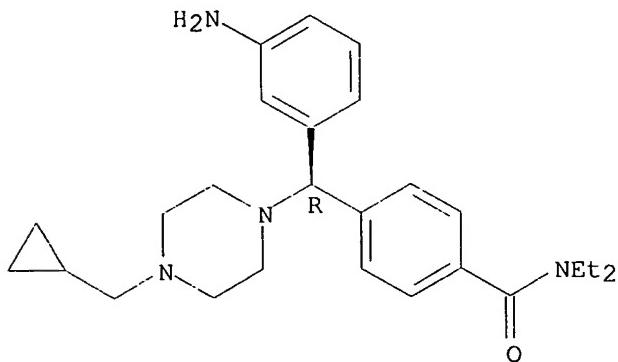
Absolute stereochemistry. Rotation (+).



RN 691878-45-2 HCPLUS

CN Benzamide, 4-[(R)-(3-aminophenyl)[4-(cyclopropylmethyl)-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 691878-61-2 HCPLUS

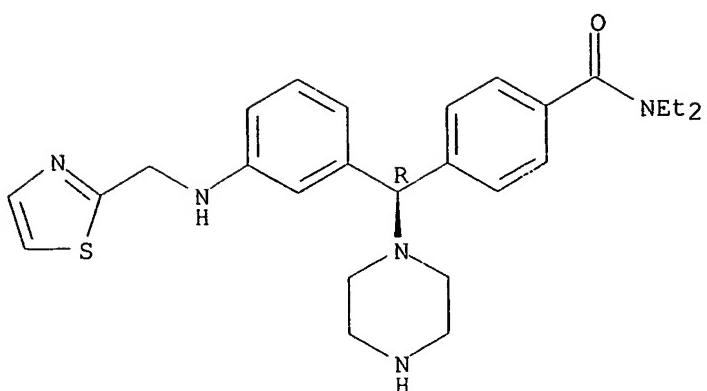
CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl[3-[(2-thiazolylmethyl)amino]phenyl]methyl]-, trifluoroacetate (5:12) (9CI) (CA INDEX NAME)

CM 1

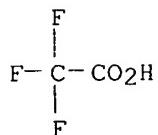
CRN 691877-69-7

CMF C26 H33 N5 O S

Absolute stereochemistry. Rotation (-).



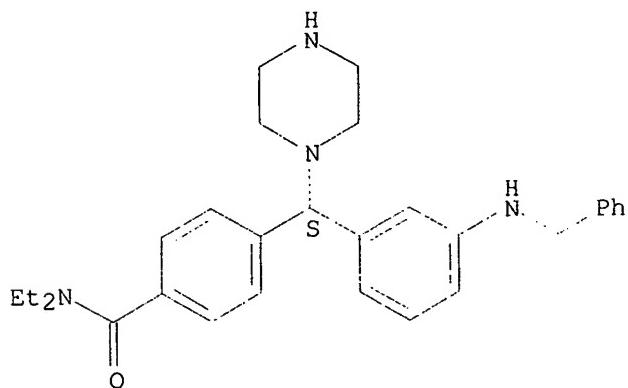
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-62-3 HCAPLUS
CN Benzamide, N,N-diethyl-4-[(S)-[3-[(phenylmethyl)amino]phenyl]-1-piperazinylmethyl]-, trifluoroacetate (5:13) (9CI) (CA INDEX NAME)

CM 1

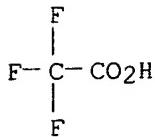
CRN 691877-70-0
CMF C29 H36 N4 O

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

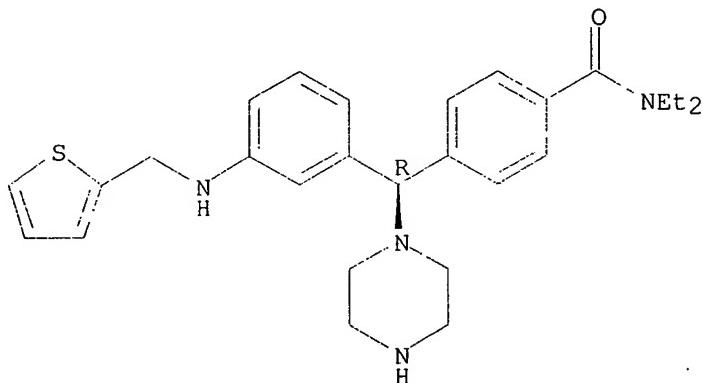


RN 691878-63-4 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl[3-[(2-thienylmethyl)amino]phenyl]methyl]-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

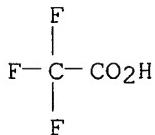
CRN 691877-71-1
 CMF C27 H34 N4 O S

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

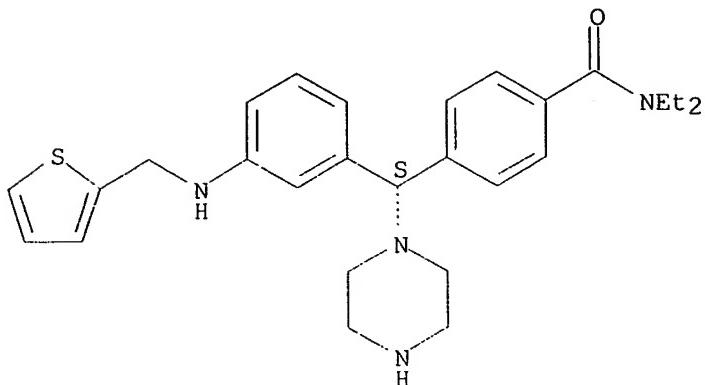


RN 691878-64-5 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-[(2-thienylmethyl)amino]phenyl]methyl]-, tris(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

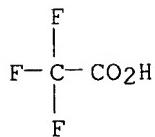
CRN 691877-72-2
 CMF C27 H34 N4 O S

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

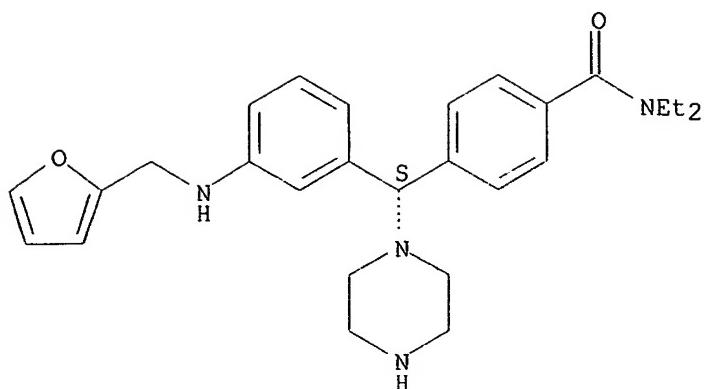


RN 691878-65-6 HCPLUS
 CN Benzamide, N,N-diethyl-4-[{(S)-[3-[(2-furanyl)methyl]amino]phenyl]-1-piperazinylmethyl]-, trifluoroacetate (2:5) (9CI) (CA INDEX NAME)

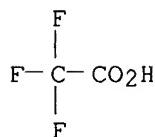
CM 1

CRN 691877-73-3
 CMF C27 H34 N4 O2

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
CMF C2 H F3 O2

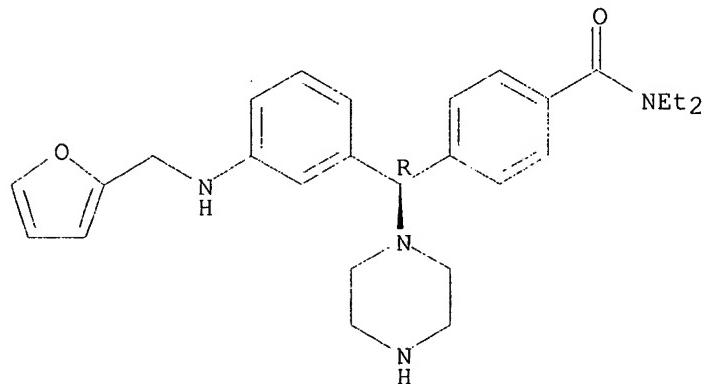
RN 691878-66-7 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(2-furanyl methyl)amino]phenyl]-1-piperazinylmethyl]-, tris(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

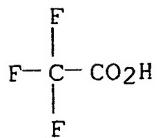
CRN 691877-75-5
CMF C27 H34 N4 O2

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

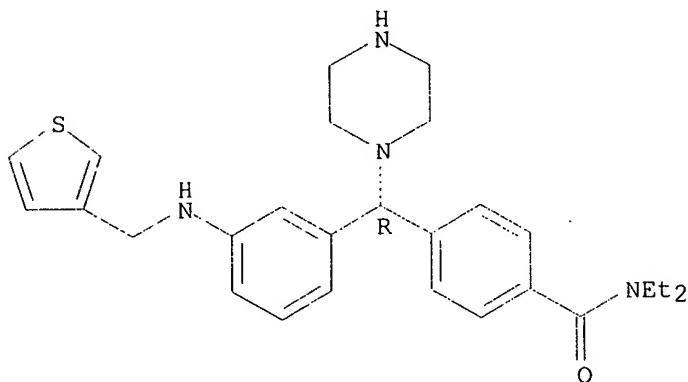


RN 691878-67-8 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl[3-[(3-thienylmethyl)amino]phenyl]methyl]-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

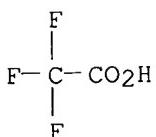
CRN 691877-76-6
 CMF C27 H34 N4 O S

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

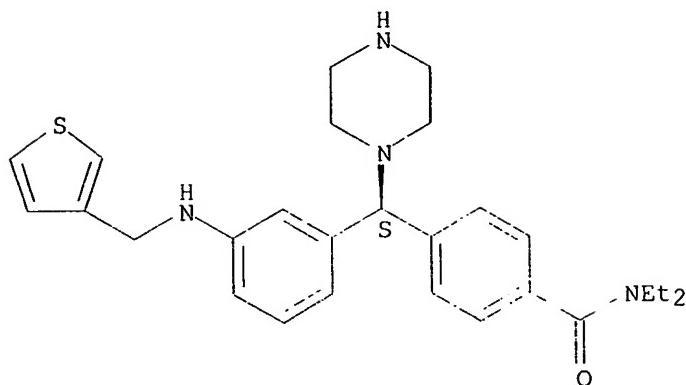


RN 691878-68-9 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-[(3-thienylmethyl)amino]phenyl]methyl]-, trifluoroacetate (5:14) (9CI) (CA INDEX NAME)

CM 1

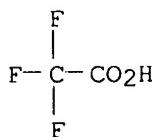
CRN 691877-77-7
 CMF C27 H34 N4 O S

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

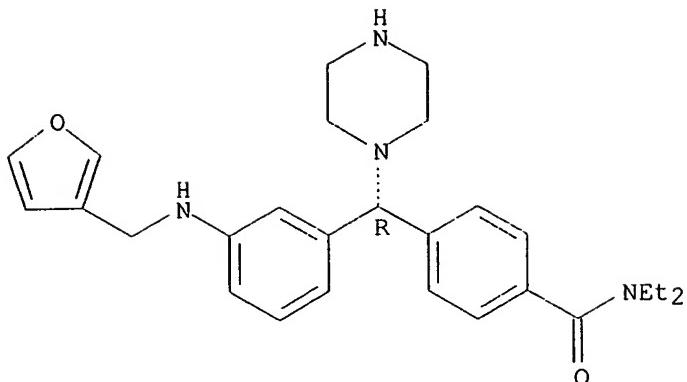


RN 691878-69-0 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-[3-[3-furanylmethyl]amino]phenyl]-1-piperazinylmethyl-, trifluoroacetate (5:9) (9CI) (CA INDEX NAME)

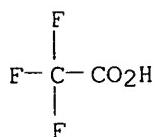
CM 1

CRN 691877-78-8
 CMF C27 H34 N4 O2

Absolute stereochemistry. Rotation (-).



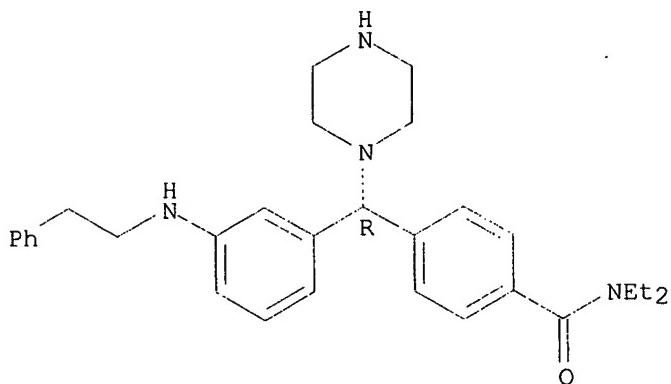
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-70-3 HCAPLUS
CN Benzamide, N,N-diethyl-4-[(R)-[3-[(2-phenylethyl)amino]phenyl]-1-piperazinylmethyl]-, trifluoroacetate (10:19) (9CI) (CA INDEX NAME)

CM 1

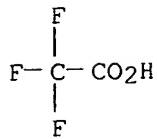
CRN 691877-79-9
CMF C30 H38 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

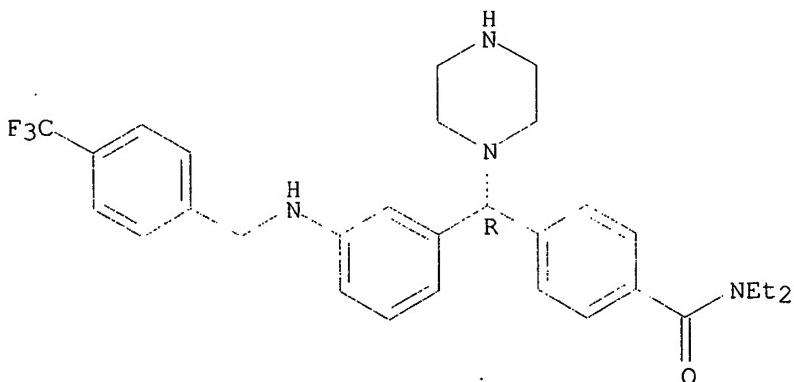


RN 691878-71-4 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl[3-[[[4-(trifluoromethyl)phenyl]methyl]amino]phenyl]methyl]-, trifluoroacetate (5:7) (9CI) (CA INDEX NAME)

CM 1

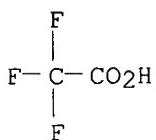
CRN 691877-81-3
 CMF C30 H35 F3 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

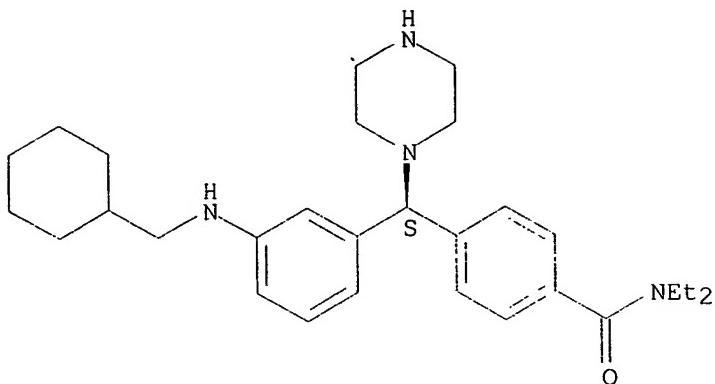


RN 691878-72-5 HCPLUS
 CN Benzamide, 4-[(S)-[3-[(cyclohexylmethyl)amino]phenyl]-1-piperazinylmethyl]-, N,N-diethyl-, trifluoroacetate (5:14) (9CI) (CA INDEX NAME)

CM 1

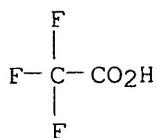
CRN 691877-83-5
 CMF C29 H42 N4 O

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

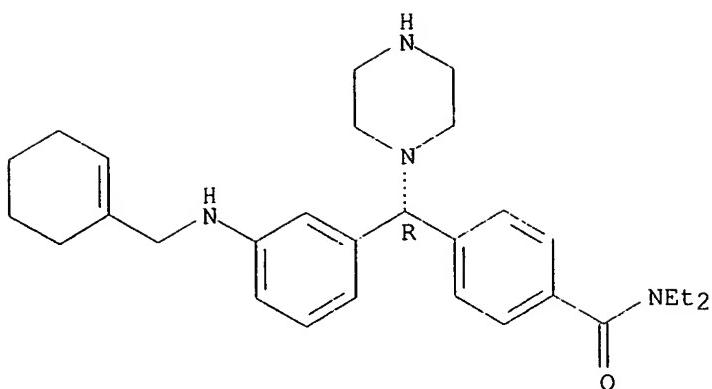


RN 691877-83-6 HCAPLUS
 CN Benzamide, 4-[(R)-[3-[(1-cyclohexen-1-ylmethyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (10:29) (9CI) (CA INDEX NAME)

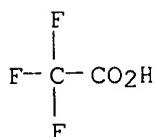
CM 1

CRN 691877-85-7
 CMF C29 H40 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

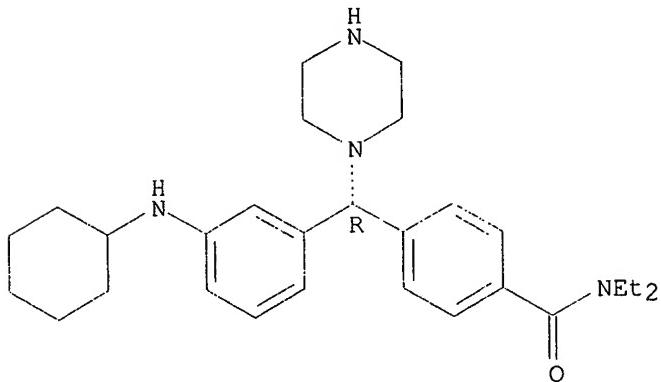
CRN 76-05-1
CMF C2 H F3 O2

RN 691878-75-8 HCPLUS
 CN Benzamide, 4-[(R)-[3-(cyclohexylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (10:23) (9CI) (CA INDEX NAME)

CM 1

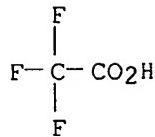
CRN 691878-74-7
CMF C28 H40 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

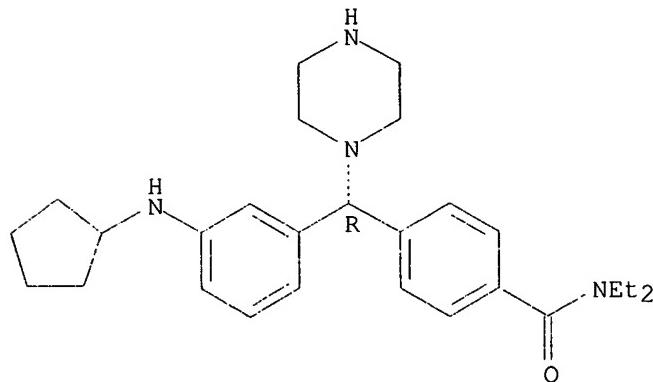


RN 691878-76-9 HCAPLUS
 CN Benzamide, 4-[(R)-[3-(cyclopentylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (5:13) (9CI) (CA INDEX NAME)

CM 1

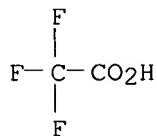
CRN 691877-89-1
 CMF C27 H38 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2



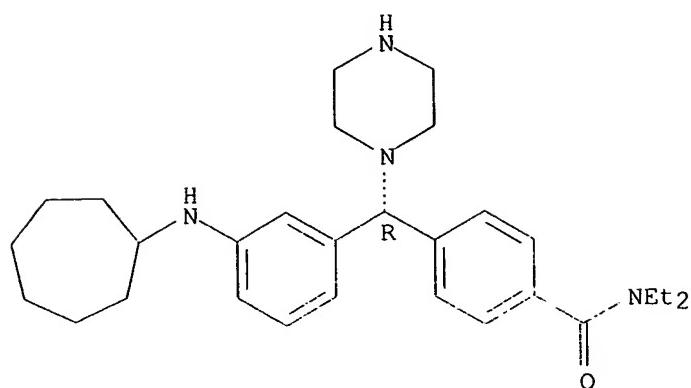
RN 691878-77-0 HCAPLUS
 CN Benzamide, 4-[(R)-[3-(cycloheptylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (2:5) (9CI) (CA INDEX NAME)

CM 1

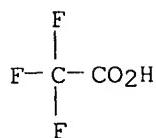
CRN 691877-90-4

CMF C29 H42 N4 O

Absolute stereochemistry. Rotation (-).



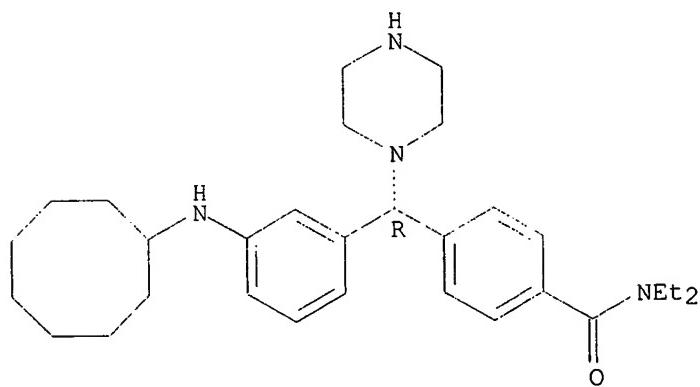
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-78-1 HCAPLUS
CN Benzamide, 4-[(R)-[3-(cyclooctylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (5:13) (9CI) (CA INDEX NAME)

CM 1

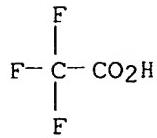
CRN 691877-91-5
CMF C30 H44 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

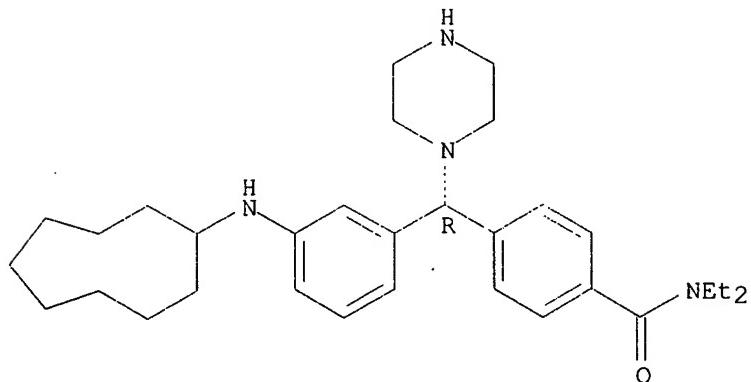


RN 691878-79-2 HCPLUS
 CN Benzamide, 4-[(R)-[3-(cyclononylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (5:13) (9CI) (CA INDEX NAME)

CM 1

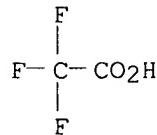
CRN 691877-92-6
 CMF C31 H46 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

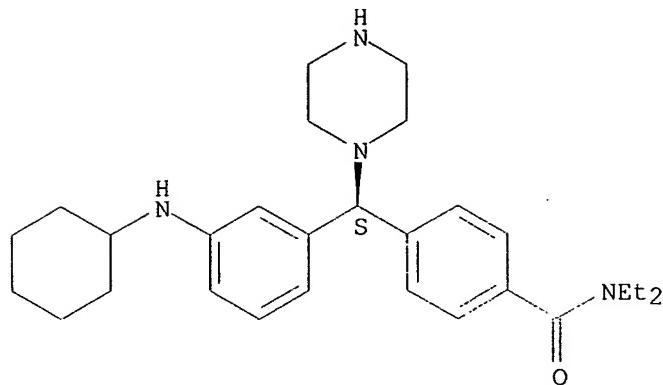


RN 691878-80-5 HCPLUS
 CN Benzamide, 4-[(S)-[3-(cyclohexylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (2:5) (9CI) (CA INDEX NAME)

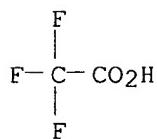
CM 1

CRN 691877-93-7
CMF C28 H40 N4 O

Absolute stereochemistry. Rotation (+).



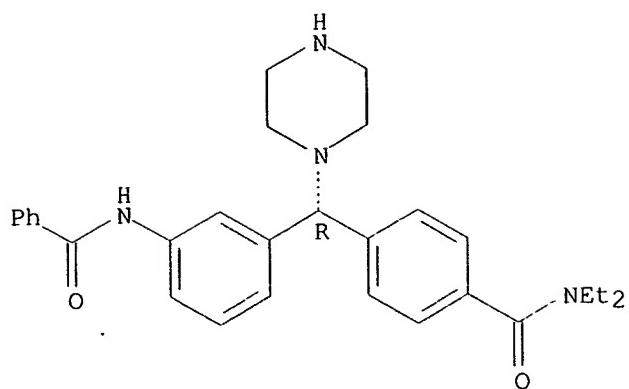
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-81-6 HCPLUS
CN Benzamide, 4-[(R)-[3-(benzoylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (5:8) (9CI) (CA INDEX NAME)

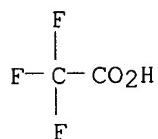
CM 1

CRN 691877-99-3
CMF C29 H34 N4 O2

Absolute stereochemistry. Rotation (-).



CM 2

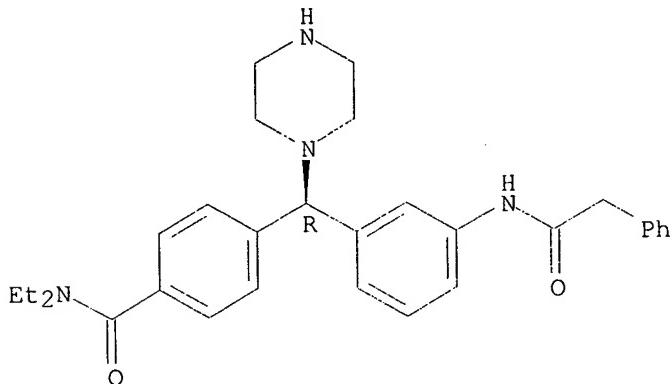
CRN 76-05-1
CMF C2 H F3 O2

RN 691878-82-7 HCAPLUS
 CN Benzeneacetamide, N-[3-[(R)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-, trifluoroacetate (10:9) (9CI) (CA INDEX NAME)

CM 1

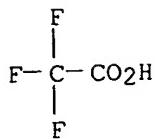
CRN 691878-00-9
CMF C30 H36 N4 O2

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

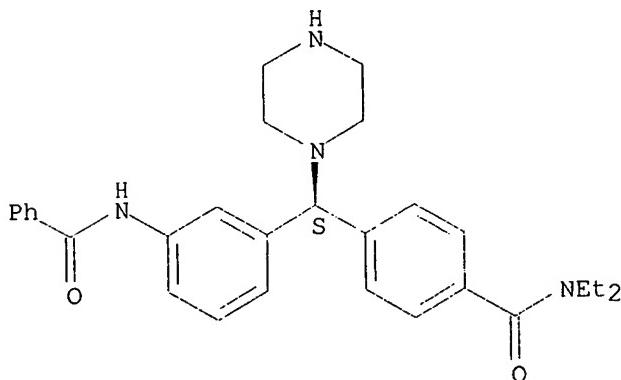


RN 691878-83-8 HCPLUS
 CN Benzamide, 4-[(S)-[3-(benzoylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (10:19) (9CI) (CA INDEX NAME)

CM 1

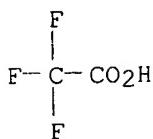
CRN 691878-01-0
 CMF C29 H34 N4 O2

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2



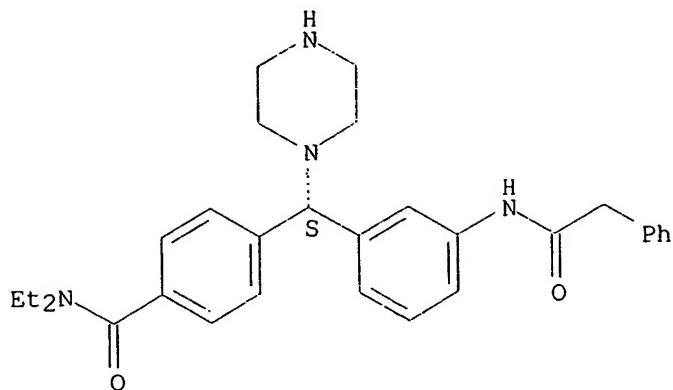
RN 691878-84-9 HCPLUS
 CN Benzeneacetamide, N-[3-[(S)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-, trifluoroacetate (5:9) (9CI) (CA INDEX NAME)

CM 1

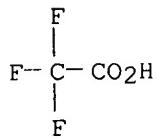
CRN 691878-02-1

CMF C30 H36 N4 O2

Absolute stereochemistry. Rotation (+).



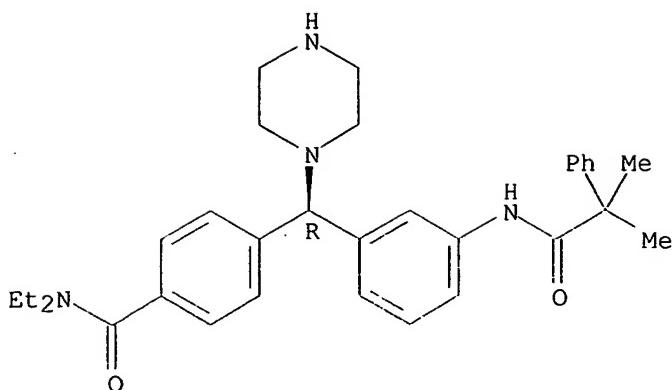
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-85-0 HCAPLUS
CN Benzeneacetamide, N-[3-[(R)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-α,α-dimethyl-, trifluoroacetate
(2:3) (9CI) (CA INDEX NAME)

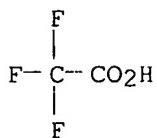
CM 1

CRN 691878-03-2
CMF C32 H40 N4 O2

Absolute stereochemistry. Rotation (-).



CM 2

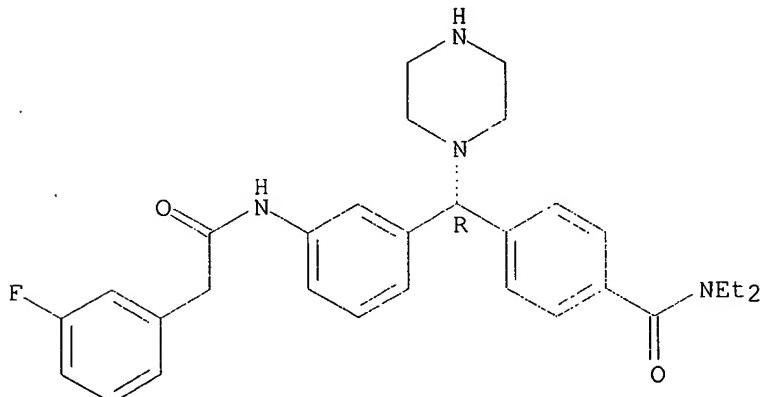
CRN 76-05-1
CMF C2 H F3 O2

RN 691878-86-1 HCAPLUS
 CN Benzeneacetamide, N-[3-[(R)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-3-fluoro-, trifluoroacetate (5:7) (9CI) (CA INDEX NAME)

CM 1

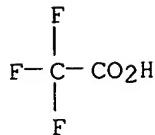
CRN 691878-04-3
CMF C30 H35 F N4 O2

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

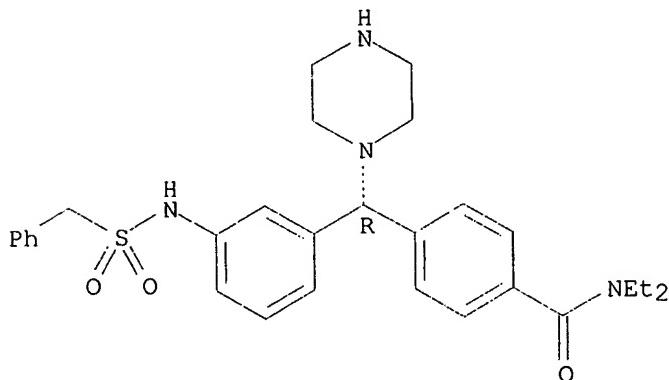


RN 691878-87-2 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-[3-[(phenylmethyl)sulfonyl]amino]phenyl]-1-piperazinylmethyl-, trifluoroacetate (5:3) (9CI) (CA INDEX NAME)

CM 1

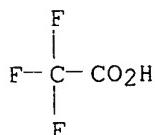
CRN 691878-11-2
 CMF C29 H36 N4 O3 S

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

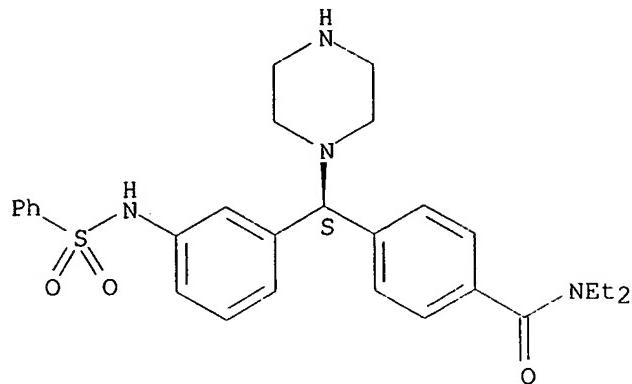


RN 691878-89-4 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-[3-[(phenylsulfonyl)amino]phenyl]-1-piperazinylmethyl-, trifluoroacetate (10:19) (9CI) (CA INDEX NAME)

CM 1

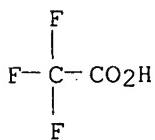
CRN 691878-88-3
 CMF C28 H34 N4 O3 S

Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

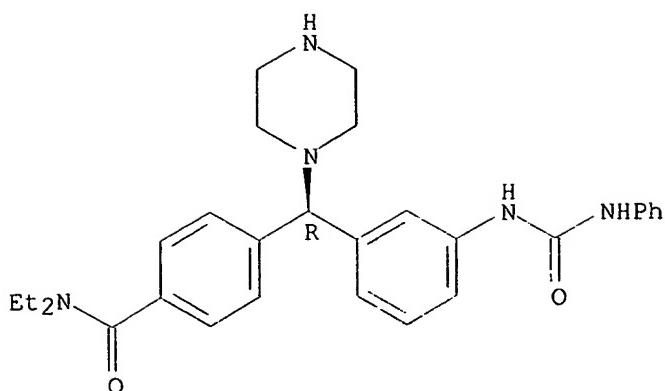


RN 691878-90-7 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-[3-[(phenylamino)carbonyl]amino]phenyl]-1-piperazinylmethyl-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

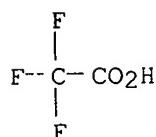
CM 1

CRN 691878-12-3
 CMF C29 H35 N5 O2

Absolute stereochemistry. Rotation (-).



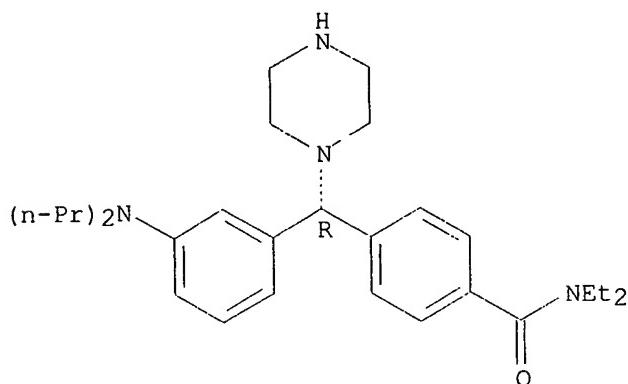
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-91-8 HCPLUS
CN Benzamide, 4-[(R)-[3-(dipropylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (5:21) (9CI) (CA INDEX NAME)

CM 1

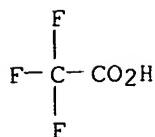
CRN 691878-19-0
CMF C28 H42 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
 CMF C2 H F3 O2

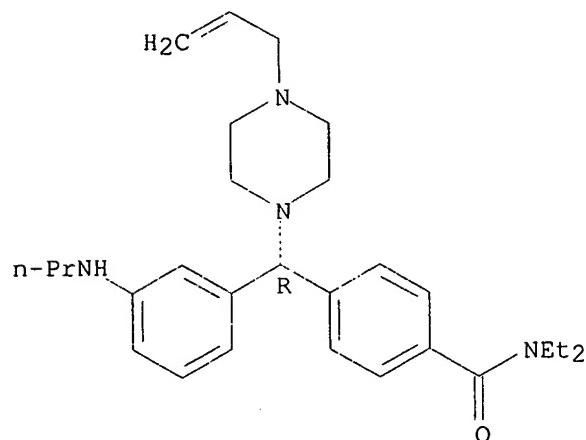


RN 691878-92-9 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-[4-(2-propenyl)-1-piperazinyl][3-(propylamino)phenyl]methyl]-, trifluoroacetate (10:27) (9CI) (CA INDEX NAME)

CM 1

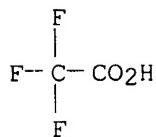
CRN 691878-33-8
 CMF C28 H40 N4 O

Absolute stereochemistry. Rotation (-).



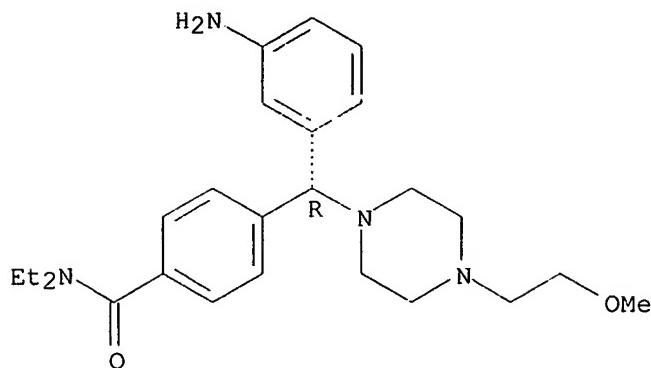
CM 2

CRN 76-05-1
 CMF C2 H F3 O2



RN 691878-93-0 HCPLUS
 CN Benzamide, 4-[(R)-(3-aminophenyl)[4-(2-methoxyethyl)-1-piperazinyl]methyl]-N,N-diethyl-, hydrochloride (5:16) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

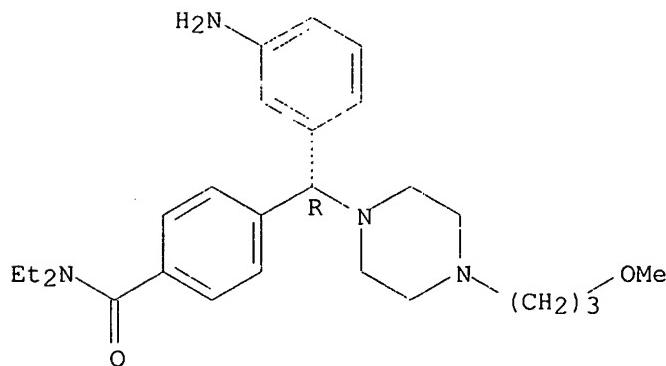


●16/5 HCl

RN 691878-94-1 HCPLUS

CN Benzamide, 4-[(R)-(3-aminophenyl)[4-(3-methoxypropyl)-1-piperazinyl]methyl]-N,N-diethyl-, tetrahydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



●4 HCl

RN 691878-95-2 HCPLUS

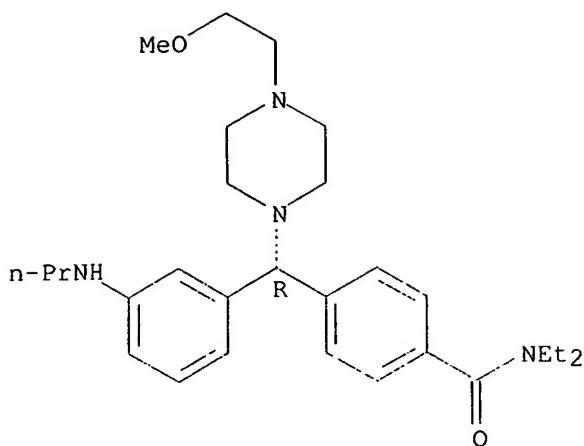
CN Benzamide, N,N-diethyl-4-[(R)-[4-(2-methoxyethyl)-1-piperazinyl][3-(propylamino)phenyl]methyl]-, trifluoroacetate (5:13) (9CI) (CA INDEX NAME)

CM 1

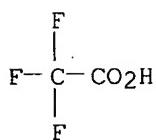
CRN 691878-36-1

CMF C28 H42 N4 O2

Absolute stereochemistry. Rotation (-).



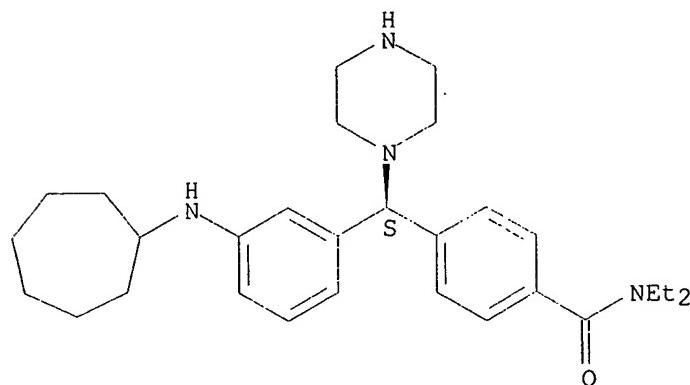
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-96-3 HCAPLUS
CN Benzamide, 4-[(S)-[3-(cycloheptylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (10:29) (9CI) (CA INDEX NAME)

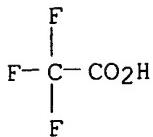
CM 1

CRN 691878-39-4
CMF C29 H42 N4 O

Absolute stereochemistry. Rotation (+).



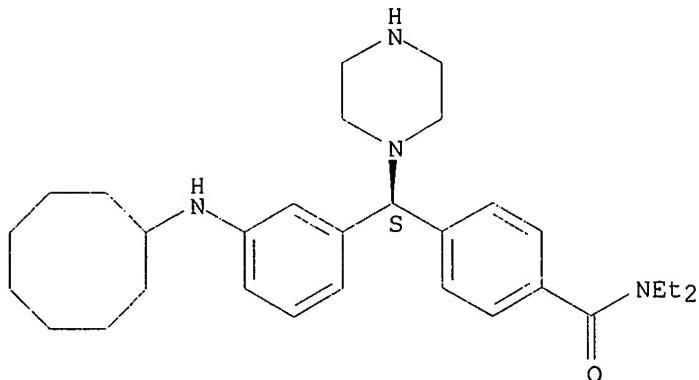
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-97-4 HCPLUS
CN Benzamide, 4-[(S)-[3-(cyclooctylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl-, trifluoroacetate (5:14) (9CI) (CA INDEX NAME)

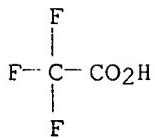
CM 1

CRN 691878-40-7
CMF C30 H44 N4 O

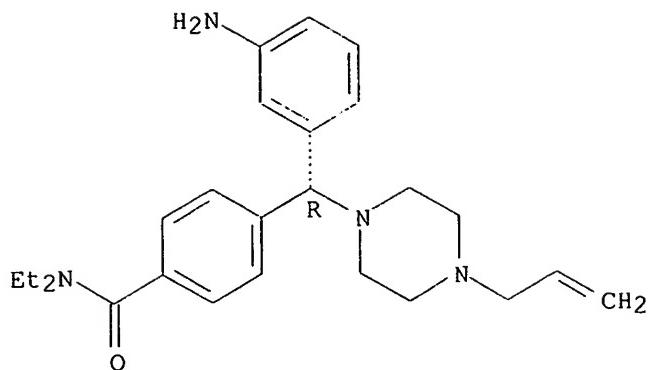
Absolute stereochemistry. Rotation (+).



CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691878-98-5 HCPLUS
CN Benzamide, 4-[(R)-(3-aminophenyl){4-(2-propenyl)-1-piperazinyl}methyl]-N,N-diethyl-, trihydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

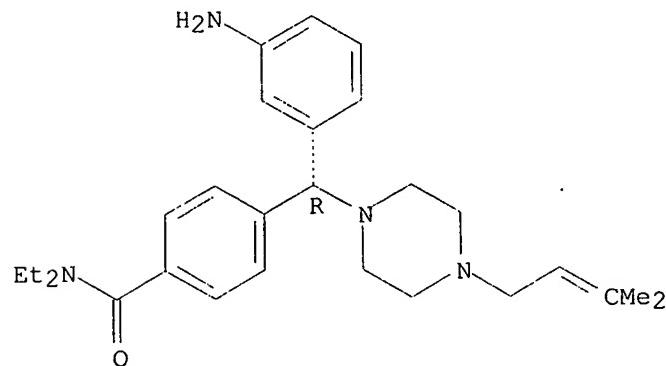


● 3 HCl

RN 691878-99-6 HCPLUS

CN Benzamide, 4-[(R)-(3-aminophenyl)[4-(3-methyl-2-butenyl)-1-piperazinyl]methyl]-N,N-diethyl-, hydrochloride (5:19) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



● 19/5 HCl

RN 691879-00-2 HCPLUS

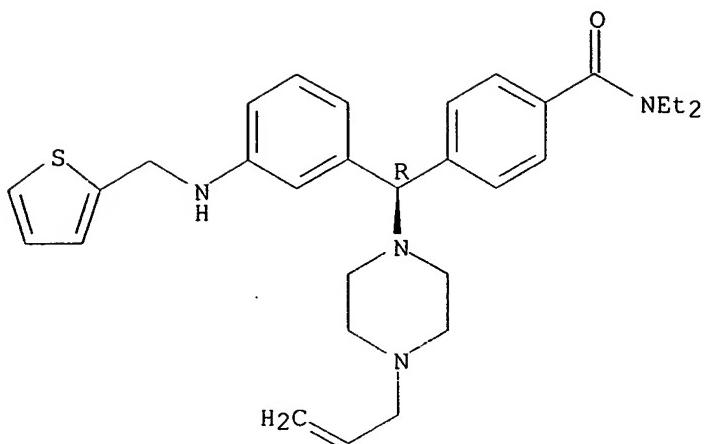
CN Benzamide, N,N-diethyl-4-[(R)-[4-(2-propenyl)-1-piperazinyl][3-[(2-thienylmethyl)amino]phenyl]methyl]-, trifluoroacetate (10:23) (9CI) (CA INDEX NAME)

CM 1

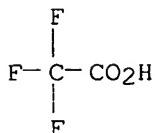
CRN 691878-46-3

CMF C₃₀ H₃₈ N₄ O S

Absolute stereochemistry. Rotation (-).



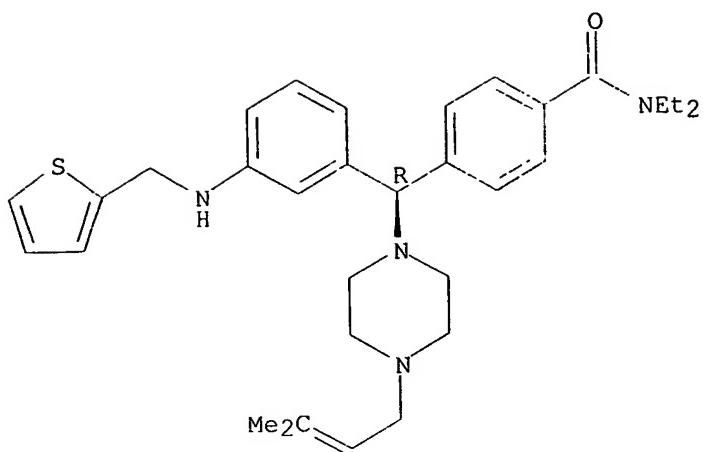
CM 2

CRN 76-05-1
CMF C2 H F3 O2RN 691879-01-3 HCPLUS
CN Benzamide, N,N-diethyl-4-[(R)-[4-(3-methyl-2-butenyl)-1-piperazinyl][3-[(2-thienylmethyl)amino]phenyl]methyl]-, trifluoroacetate (5:7) (9CI) (CA INDEX NAME)

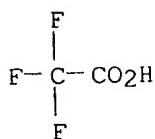
CM 1

CRN 691878-47-4
CMF C32 H42 N4 O S

Absolute stereochemistry. Rotation (-).



CM 2

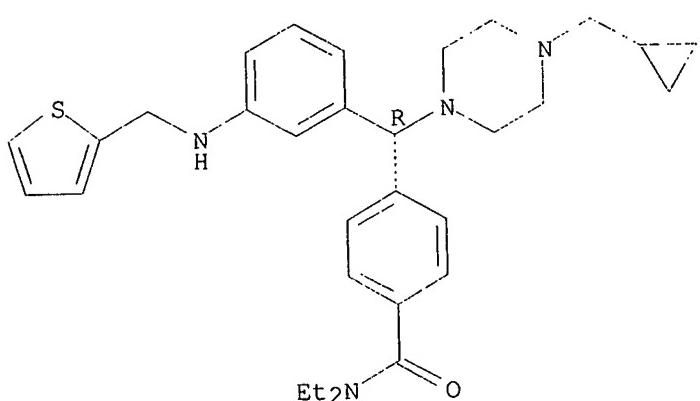
CRN 76-05-1
CMF C2 H F3 O2

RN 691879-02-4 HCAPLUS
 CN Benzamide, 4-[(R)-[4-(cyclopropylmethyl)-1-piperazinyl][3-[(2-thienylmethyl)amino]phenylmethyl]-N,N-diethyl-, trifluoroacetate (5:12)
 (9CI) (CA INDEX NAME)

CM 1

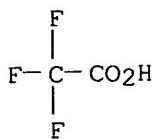
CRN 691878-48-5
CMF C31 H40 N4 O S

Absolute stereochemistry. Rotation (-).



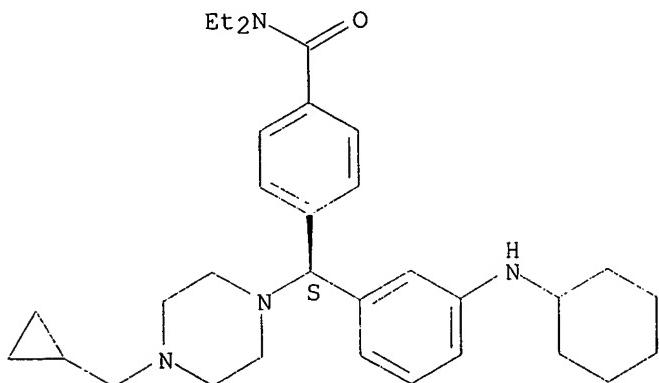
CM 2

CRN 76-05-1
 CMF C2 H F3 O2



RN 691879-03-5 HCPLUS
 CN Benzamide, 4-[(S)-[3-(cyclohexylamino)phenyl][4-(cyclopropylmethyl)-1-piperazinyl]methyl]-N,N-diethyl-, hydrochloride (5:16) (9CI) (CA INDEX NAME)

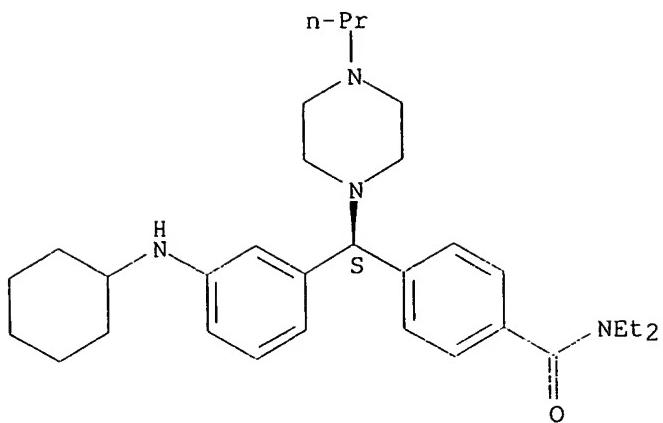
Absolute stereochemistry. Rotation (+).



●16/5 HCl

RN 691879-04-6 HCPLUS
 CN Benzamide, 4-[(S)-[3-(cyclohexylamino)phenyl](4-propyl-1-piperazinyl)methyl]-N,N-diethyl-, hydrochloride (10:43) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

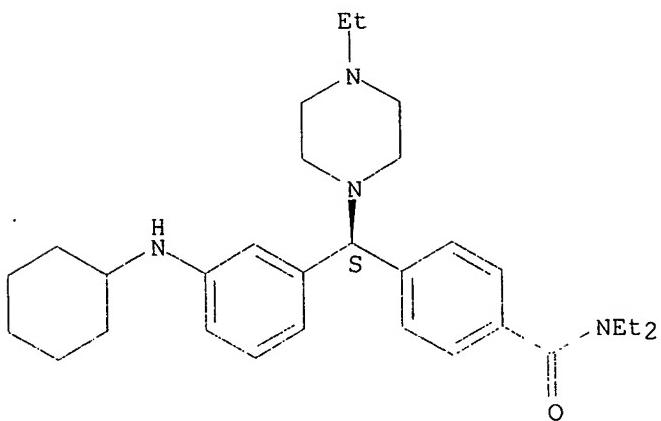


● 43/10 HCl

RN 691879-05-7 HCPLUS

CN Benzamide, 4-[(S)-[3-(cyclohexylamino)phenyl](4-ethyl-1-piperazinyl)methyl]-N,N-diethyl-, pentahydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

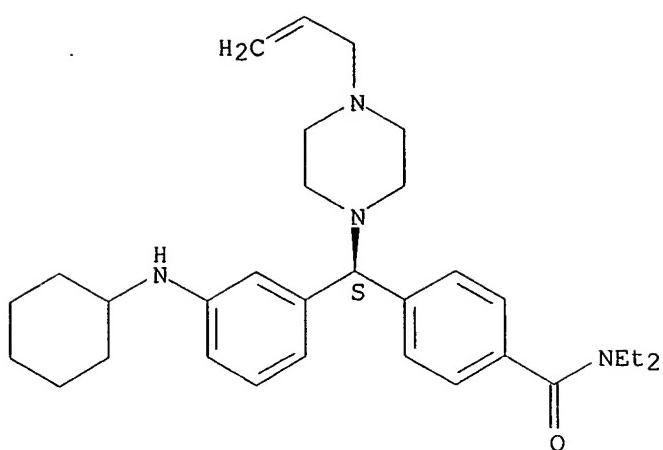


● 5 HCl

RN 691879-06-8 HCPLUS

CN Benzamide, 4-[(S)-[3-(cyclohexylamino)phenyl][4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl-, hydrochloride (5:22) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

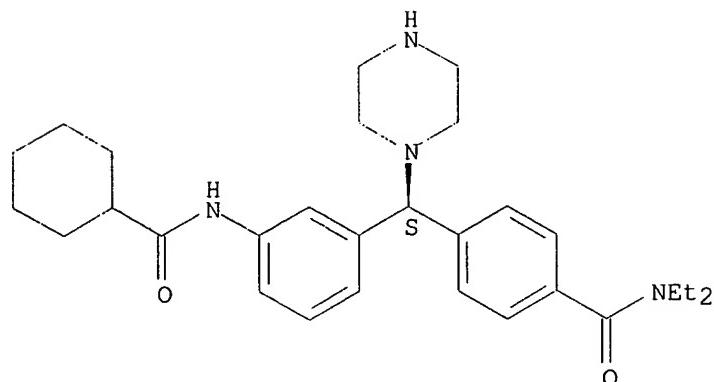


● 22/5 HCl

RN 691879-07-9 HCPLUS

CN Benzamide, 4-[(S)-[3-[(cyclohexylcarbonyl)amino]phenyl]-1-piperazinylmethyl]-, N,N-diethyl-, tetrahydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

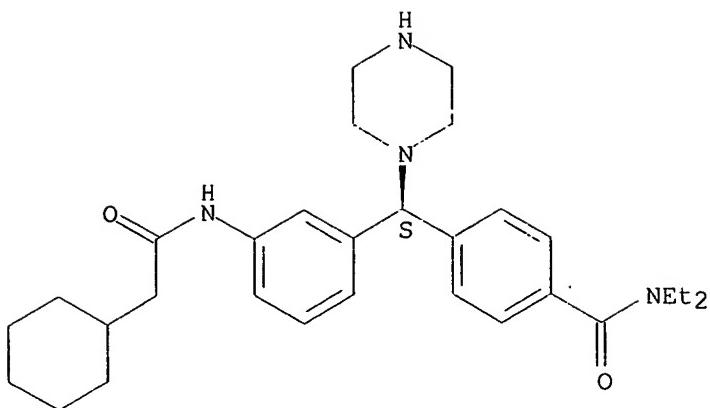


● 4 HCl

RN 691879-08-0 HCPLUS

CN Benzamide, 4-[(S)-[3-[(cyclohexylacetyl)amino]phenyl]-1-piperazinylmethyl]-, N,N-diethyl-, hydrochloride (5:2) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

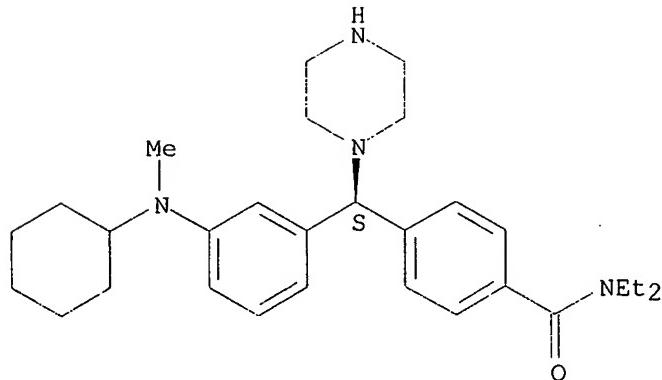


● 2/5 HCl

RN 691879-09-1 HCPLUS

CN Benzamide, 4-[{(R)-[3-(cyclohexylmethylamino)phenyl]-1-piperazinylmethyl}-N,N-diethyl-, hydrochloride (10:41) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

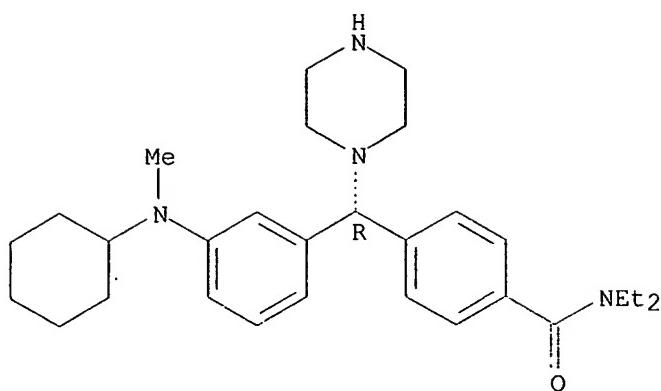


● 41/10 HCl

RN 691879-10-4 HCPLUS

CN Benzamide, 4-[{(R)-[3-(cyclohexylmethylamino)phenyl]-1-piperazinylmethyl}-N,N-diethyl-, hydrochloride (5:24) (9CI) (CA INDEX NAME)

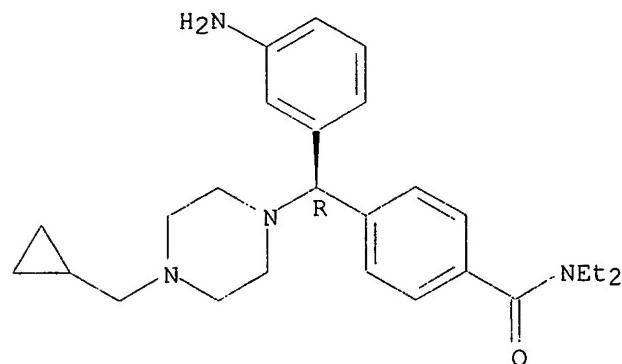
Absolute stereochemistry. Rotation (-).



●24/5 HCl

RN 691879-17-1 HCPLUS
 CN Benzamide, 4-[(R)-(3-aminophenyl)[4-(cyclopropylmethyl)-1-piperazinyl]methyl]-N,N-diethyl-, hydrochloride (5:19) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



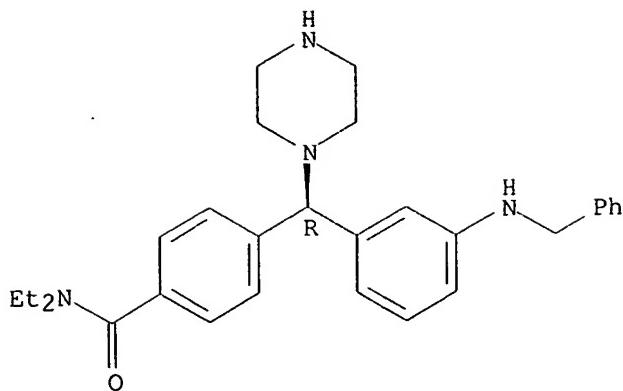
●19/5 HCl

RN 693259-21-1 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-[3-[(phenylmethyl)amino]phenyl]-1-piperazinylmethyl]-, trifluoroacetate (5:9) (9CI) (CA INDEX NAME)

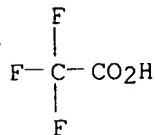
CM 1

CRN 691877-74-4
 CMF C29 H36 N4 O

Absolute stereochemistry. Rotation (-).



CM 2

CRN 76-05-1
CMF C2 H F3 O2

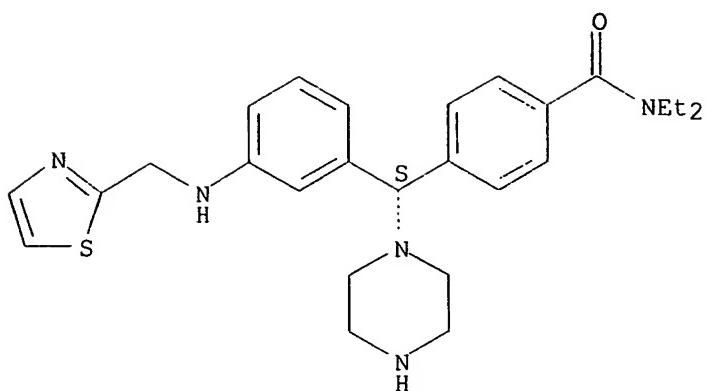
IT 691877-68-6P, (S)-*N,N*-Diethyl-4-[(piperazin-1-yl)[3-[(1,3-thiazol-2-yl)methyl]amino]phenyl]methyl]benzamide 691877-69-7P,
(R)-*N,N*-Diethyl-4-[(piperazin-1-yl)[3-[(1,3-thiazol-2-yl)methyl]amino]phenyl]methyl]benzamide 691877-70-0P,
(S)-4-[[3-(Benzylamino)phenyl](piperazin-1-yl)methyl]-*N,N*-diethylbenzamide 691877-71-1P, (R)-*N,N*-Diethyl-4-[(piperazin-1-yl)[3-[(thien-2-yl)methyl]amino]phenyl]methyl]benzamide 691877-72-2P,
(S)-*N,N*-Diethyl-4-[(piperazin-1-yl)[3-[(thien-2-yl)methyl]amino]phenyl]methyl]benzamide 691877-73-3P,
(S)-*N,N*-Diethyl-4-[[3-[(2-furylmethyl)amino]phenyl](piperazin-1-yl)methyl]benzamide 691877-74-4P, (R)-4-[[3-(Benzylamino)phenyl](piperazin-1-yl)methyl]-*N,N*-diethylbenzamide 691877-75-5P, (R)-*N,N*-Diethyl-4-[[3-[(2-furylmethyl)amino]phenyl](piperazin-1-yl)methyl]benzamide 691877-76-6P, (R)-*N,N*-Diethyl-4-[(piperazin-1-yl)[3-[(thien-3-yl)methyl]amino]phenyl]methyl]benzamide 691877-77-7P,
(S)-*N,N*-Diethyl-4-[(piperazin-1-yl)[3-[(thien-3-yl)methyl]amino]phenyl]methyl]benzamide 691877-78-8P,
(R)-*N,N*-Diethyl-4-[[3-[(3-furylmethyl)amino]phenyl](piperazin-1-yl)methyl]benzamide 691877-79-9P 691877-80-2P,
(R)-4-[[3-[(Cyclohexylmethyl)amino]phenyl](piperazin-1-yl)methyl]-*N,N*-diethylbenzamide 691877-81-3P, (R)-*N,N*-Diethyl-4-[(piperazin-1-yl)[3-[(4-trifluoromethylbenzyl)amino]phenyl]methyl]benzamide 691877-82-4P, (R)-4-[[3-[(Cyclopentylmethyl)amino]phenyl](piperazin-1-yl)methyl]-*N,N*-diethylbenzamide hydrochloride (1:0.6)
691877-83-5P, (S)-4-[[3-[(Cyclohexylmethyl)amino]phenyl](piperazin-1-yl)methyl]-*N,N*-diethylbenzamide 691877-85-7P,
(R)-4-[[3-[(Cyclohex-1-en-1-ylmethyl)amino]phenyl](piperazin-1-yl)methyl]-*N,N*-diethylbenzamide 691877-86-8P, (S)-*N,N*-Diethyl-4-[[3-

[methyl(phenyl)amino]phenyl](piperazin-1-yl)methyl]benzamide hydrochloride
691877-87-9P, (S)-N,N-Diethyl-4-[[3-[ethyl(phenyl)amino]phenyl](pi-
perazin-1-yl)methyl]benzamide hydrochloride **691877-88-0P**,
(R)-N,N-Diethyl-4-[[3-[ethyl(phenyl)amino]phenyl](piperazin-1-
yl)methyl]benzamide hydrochloride **691877-89-1P**,
(R)-4-[[3-(Cyclopentylamino)phenyl](piperazin-1-yl)methyl]-N,N-
diethylbenzamide **691877-90-4P**, (R)-4-[[3-
(Cycloheptylaminoo)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide
691877-91-5P, (R)-4-[[3-(Cyclooctylamino)phenyl](piperazin-1-
yl)methyl]-N,N-diethylbenzamide **691877-92-6P**,
(R)-4-[[3-(Cyclononylaminoo)phenyl](piperazin-1-yl)methyl]-N,N-
diethylbenzamide **691877-94-8P**, (R)-N,N-Diethyl-4-[[3-[(4-
methylphenyl)amino]phenyl](piperazin-1-yl)methyl]benzamide hydrochloride
(1:2.9) **691877-95-9P**, (S)-N,N-Diethyl-4-[[3-[(4-
methylphenyl)amino]phenyl](piperazin-1-yl)methyl]benzamide
trihydrochloride **691877-96-0P**, (R)-4-[[3-[(3-
Chlorophenyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide
hydrochloride (1:2.9) **691877-97-1P**, (S)-4-[[3-[(3-
Chlorophenyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide
hydrochloride **691877-98-2P**, (R)-4-[[3-[(2-
Fluorophenyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide
hydrochloride (1:2.9) **691877-99-3P**, (R)-4-[[3-
(Benzoylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide
691878-00-9P, (R)-N,N-Diethyl-4-[[3-[(phenylacetyl)amino]phenyl](p-
iperazin-1-yl)methyl]benzamide **691878-01-0P**,
(S)-4-[[3-(Benzoylamino)phenyl](piperazin-1-yl)methyl]-N,N-
diethylbenzamide **691878-02-1P**, (S)-N,N-Diethyl-4-[[3-
[(phenylacetyl)amino]phenyl](piperazin-1-yl)methyl]benzamide
691878-03-2P, (R)-N,N-Diethyl-4-[[3-[(2-methyl-2-
phenylpropanoyl)amino]phenyl](piperazin-1-yl)methyl]benzamide
691878-04-3P, (R)-N,N-Diethyl-4-[[3-[(3-
fluorophenyl)acetyl]amino]phenyl](piperazin-1-yl)methyl]benzamide
691878-05-4P, (R)-4-[[3-[(Cyclohexylacetyl)amino]phenyl](piperazin-
1-yl)methyl]-N,N-diethylbenzamide **691878-07-6P**,
(R)-N,N-Diethyl-4-[[3-[(3-phenylpropanoyl)amino]phenyl](piperazin-1-
yl)methyl]benzamide **691878-08-7P**, (R)-4-[[3-
[(Cyclohexylcarbonyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-
diethylbenzamide **691878-11-2P**, (R)-4-[[3-
[(Benzylsulfonyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide
691878-12-3P, (R)-4-[[3-[(Anilinocarbonyl)amino]phenyl](piperazin-
1-yl)methyl]-N,N-diethylbenzamide **691878-13-4P**,
(R)-4-[[3-[(Anilinocarbonothioyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-
diethylbenzamide **691878-14-5P**, (S)-N,N-Diethyl-4-[(1-
piperaziny1)[3-(propylamino)phenyl]methyl]benzamide
691878-15-6P, (S)-4-[[3-(Dipropylamino)phenyl]piperazin-1-
ylmethyl]-N,N-diethylbenzamide **691878-19-0P**,
(R)-4-[[3-(Dipropylamino)phenyl]piperazin-1-ylmethyl]-N,N-diethylbenzamide
691878-21-4P, (S)-N,N-Diethyl-4-[(1-piperaziny1)
)[3-[[4-(3-pyridinyl)phenyl]methyl]amino]phenyl]methyl]benzamide
691878-23-6P, (S)-N,N-Diethyl-4-[[3-[[4-(1H-imidazol-1-
yl)phenyl]methyl]amino]phenyl]piperazin-1-ylmethyl]benzamide
691878-25-8P, (S)-N,N-Diethyl-4-[(1-piperaziny1)
)[3-[(2-quinolinylmethyl)amino]phenyl]methyl]benzamide
691878-27-0P, (R)-4-[[3-[(2,2-Diphenylethyl)amino]phenyl](piperazi-
n-1-yl)methyl]-N,N-diethylbenzamide **691878-29-2P**,
(R)-4-[[3-[[4-(1,1-Dimethylethyl)phenyl]methyl]amino]phenyl](piperazin-1-
yl)methyl]-N,N-diethylbenzamide **691878-31-6P**,
(R)-N,N-Diethyl-4-[[3-[[4-phenoxyphenyl]methyl]amino]phenyl](piperazin-1-
yl)methyl]benzamide **691878-33-8P**, (R)-N,N-Diethyl-4-[[4-(2-
propenyl)-1-piperaziny1)[3-(propylamino)phenyl]methyl]benzamide

691878-36-1P, (R)-N,N-Diethyl-4-[(4-(2-methoxyethyl)-1-piperazinyl)[3-(propylamino)phenyl]methyl]benzamide
 691878-37-2P, (R)-N,N-Diethyl-4-[(4-(3-methoxypropyl)-1-piperazinyl)[3-(propylamino)phenyl]methyl]benzamide
 691878-40-7P, (S)-4-[[3-(Cyclooctylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-41-8P,
 (S)-N,N-Diethyl-4-[[3-[(3-phenylpropanoyl)amino]phenyl](piperazin-1-yl)methyl]benzamide hydrochloride (1:2.9) 691878-46-3P,
 (R)-N,N-Diethyl-4-[(4-(2-propenyl)-1-piperazinyl)[3-[(2-thienyl)methyl]amino]phenyl]methyl]benzamide 691878-47-4P
 , (R)-N,N-Diethyl-4-[(4-(3-methyl-2-but enyl)-1-piperazinyl)[3-[(2-thienyl)methyl]amino]phenyl]methyl]benzamide 691878-48-5P
 , (R)-4-[[4-(Cyclopropylmethyl)-1-piperazinyl)[3-[(2-thienylmethyl)amino]phenyl]methyl]-N,N-diethylbenzamide
 691878-49-6P, (S)-4-[[3-(Cyclohexylamino)phenyl][4-(cyclopropylmethyl)piperazin-1-yl]methyl]-N,N-diethylbenzamide
 691878-50-9P, (S)-4-[[3-(Cyclohexylamino)phenyl](4-propylpiperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-51-0P,
 (S)-4-[[3-(Cyclohexylamino)phenyl](4-ethylpiperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-52-1P, (S)-4-[(4-Allylpiperazin-1-yl)[3-(cyclohexylamino)phenyl]methyl]-N,N-diethylbenzamide 691878-53-2P
 , (S)-4-[[3-[(Cyclohexylcarbonyl)aminophenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-54-3P, (S)-4-[[3-[(Cyclohexylacetyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-55-4P, (S)-4-[[3-[Cyclohexyl(methyl)aminophenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-56-5P, (R)-4-[[3-[Cyclohexyl(methyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-57-6P, (S)-N,N-Diethyl-4-[[3-[ethyl(phenyl)amino]phenyl](piperazin-1-yl)methyl]benzamide
 691878-58-7P, (R)-N,N-Diethyl-4-[[3-[methyl(phenyl)amino]phenyl](piperazin-1-yl)methyl]benzamide 691878-59-8P,
 (R)-N,N-Diethyl-4-[[3-[ethyl(phenyl)amino]phenyl](piperazin-1-yl)methyl]benzamide 691878-60-1P, (S)-4-[[3-[(2-Fluorophenyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-74-7P, (R)-4-[[3-[(Cyclohexylamino)phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide 691878-88-3P,
 (S)-N,N-Diethyl-4-[[3-[(phenylsulfonyl)amino]phenyl](piperazin-1-yl)methyl]benzamide 691879-16-0P, (R)-N,N-Diethyl-4-[[3-[(phenylsulfonyl)amino]phenyl](piperazin-1-yl)methyl]benzamide
 692726-52-6P 693259-12-0P, (R)-N,N-Diethyl-4-[[3-[methyl(phenyl)amino]phenyl](piperazin-1-yl)methyl]benzamide hydrochloride 693259-13-1P, (S)-4-[[3-[(2-Fluorophenyl)amino]phenyl](piperazin-1-yl)methyl]-N,N-diethylbenzamide trihydrochloride 693259-14-2P
 693259-15-3P 693259-16-4P 693259-17-5P
 693259-18-6P 693259-19-7P 693259-20-0P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (δ receptor agonist; preparation of (phenylpiperazinylmethyl)benzamides as δ receptor agonists for treatment of pain, anxiety, or gastrointestinal disorders)

RN 691877-68-6 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-[(2-thiazolylmethyl)amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

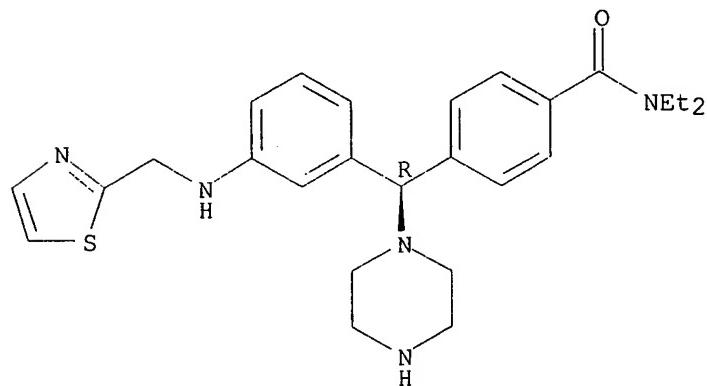
Absolute stereochemistry.



RN 691877-69-7 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl[3-[(2-thiazolylmethyl)amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

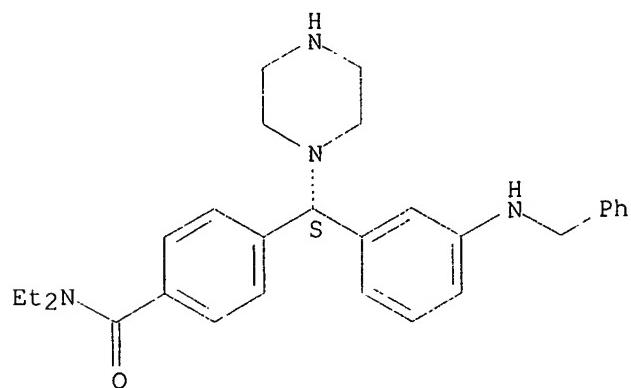
Absolute stereochemistry. Rotation (-).



RN 691877-70-0 HCAPLUS

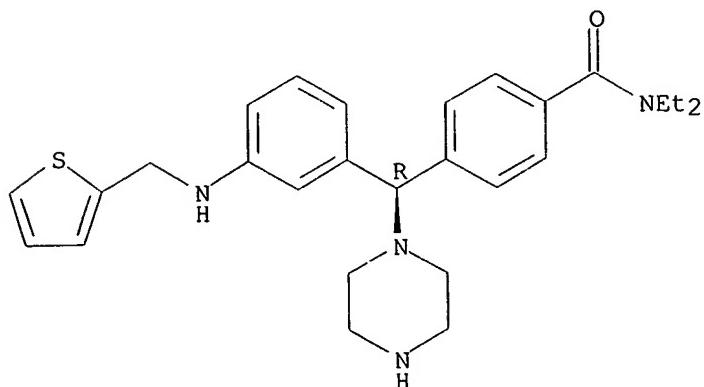
CN Benzamide, N,N-diethyl-4-[(S)-[3-[(phenylmethyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



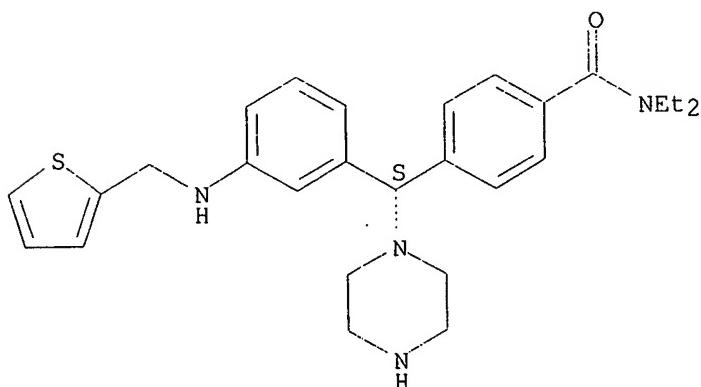
RN 691877-71-1 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl[3-[(2-thienylmethyl)amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



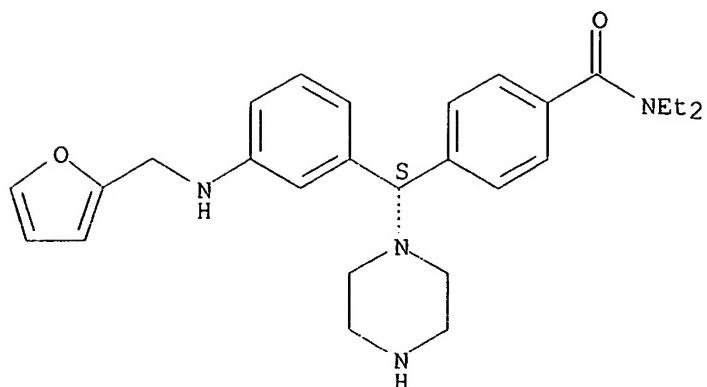
RN 691877-72-2 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-[(2-thienylmethyl)amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 691877-73-3 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-[3-[(2-furanylmethyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

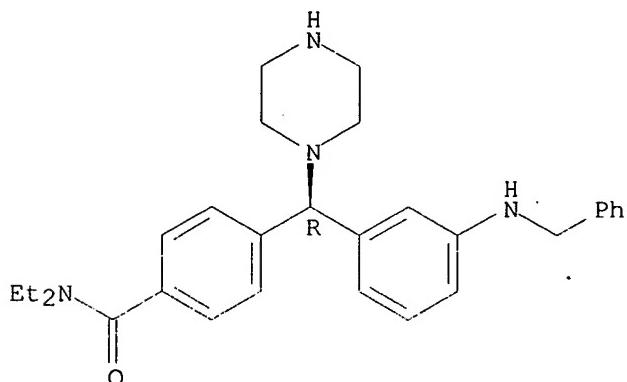
Absolute stereochemistry. Rotation (+).



RN 691877-74-4 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(phenylmethyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

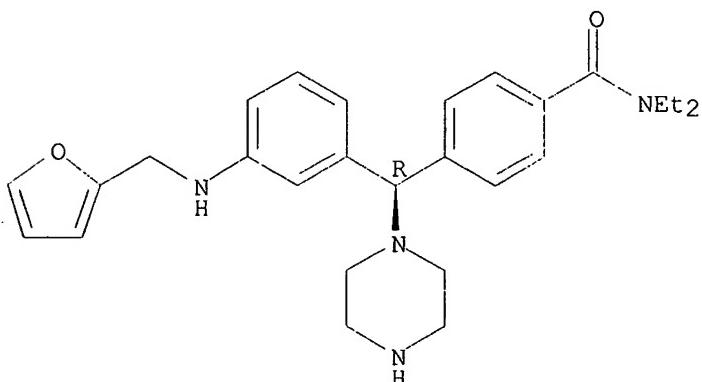
Absolute stereochemistry. Rotation (-).



RN 691877-75-5 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(2-furanyl)methyl]amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

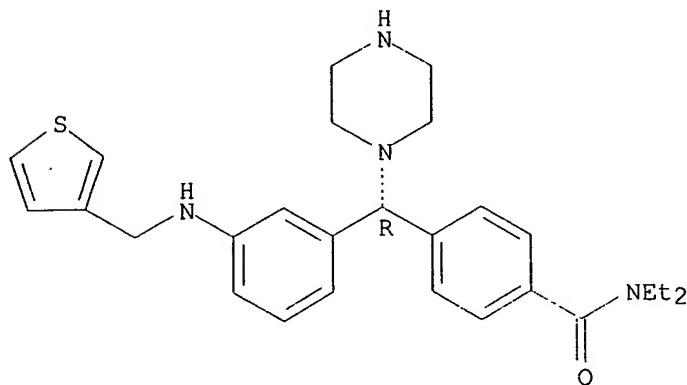
Absolute stereochemistry. Rotation (-).



RN 691877-76-6 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl[3-[(3-thienylmethyl)amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

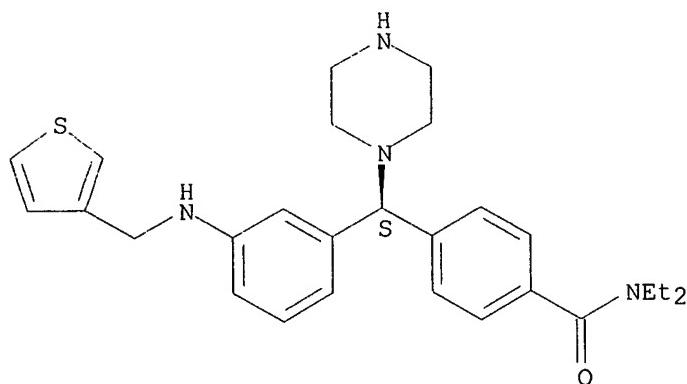
Absolute stereochemistry. Rotation (-).



RN 691877-77-7 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-[(3-thienylmethyl)amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

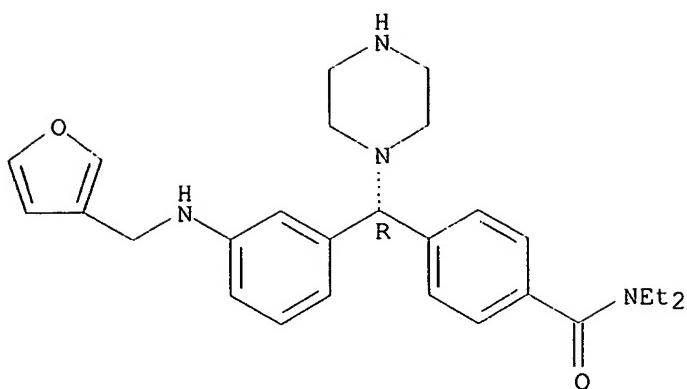
Absolute stereochemistry. Rotation (+).



RN 691877-78-8 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(3-furanyl)methyl]amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

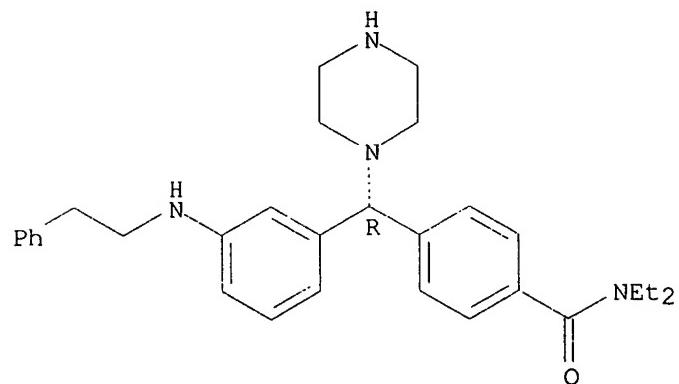
Absolute stereochemistry. Rotation (-).



RN 691877-79-9 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(2-phenylethyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

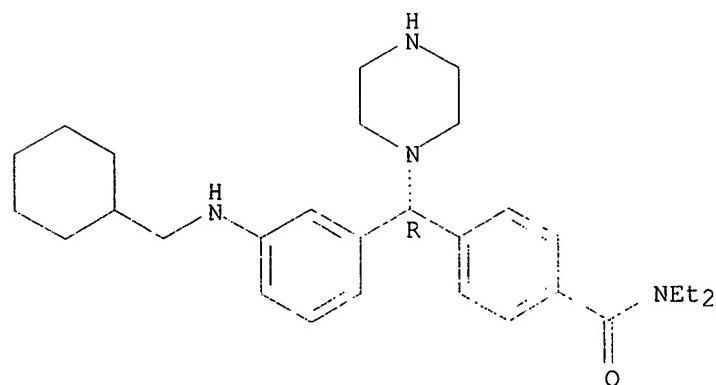
Absolute stereochemistry. Rotation (-).



RN 691877-80-2 HCAPLUS

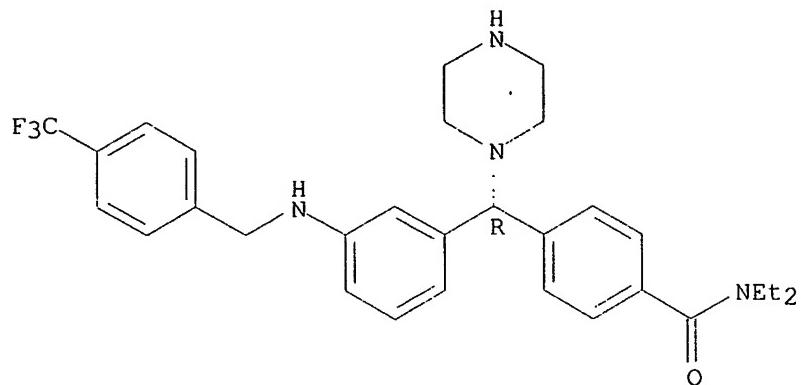
CN Benzamide, 4-[(R)-[3-[(cyclohexylmethyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



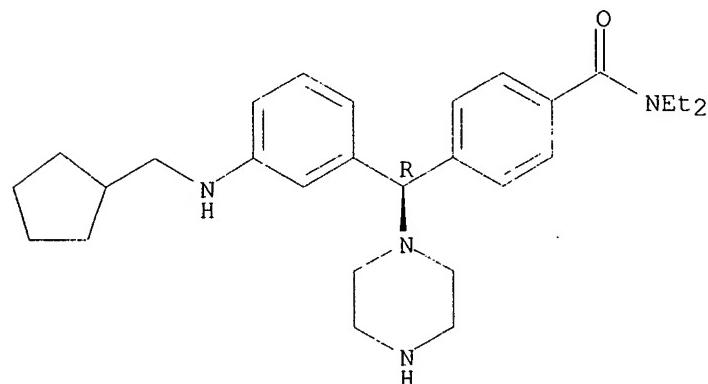
RN 691877-81-3 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-1-piperazinyl[3-[[4-(trifluoromethyl)phenyl]methyl]amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 691877-82-4 HCPLUS
 CN Benzamide, 4-[(R)-[3-[(cyclopentylmethyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl-, hydrochloride (5:3) (9CI) (CA INDEX NAME)

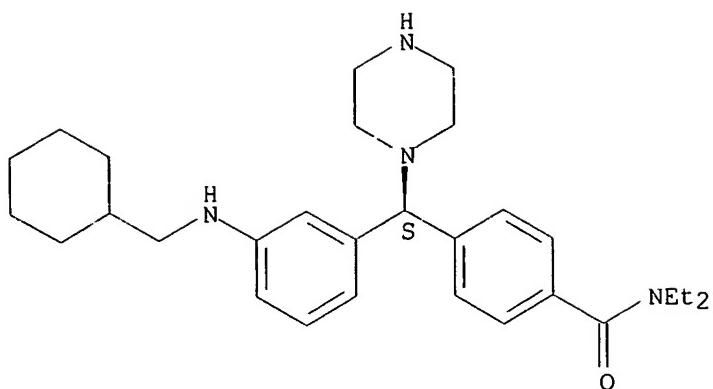
Absolute stereochemistry. Rotation (-).



● 3/5 HCl

RN 691877-83-5 HCPLUS
 CN Benzamide, 4-[(S)-[3-[(cyclohexylmethyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

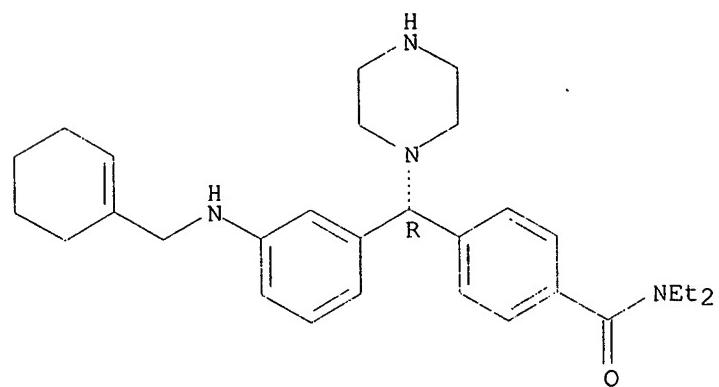
Absolute stereochemistry. Rotation (+).



RN 691877-85-7 HCAPLUS

CN Benzamide, 4-[(R)-[3-[(1-cyclohexen-1-ylmethyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

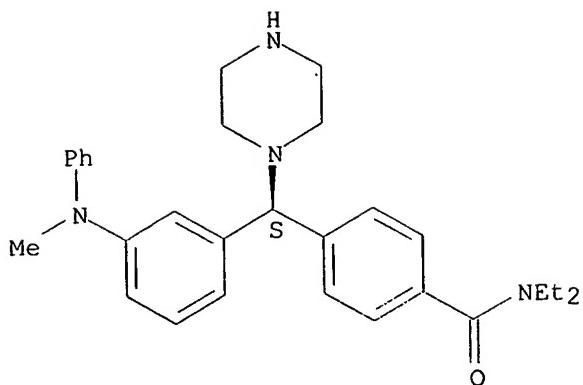
Absolute stereochemistry. Rotation (-).



RN 691877-86-8 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(S)-[3-(methylphenylamino)phenyl]-1-piperazinylmethyl]-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

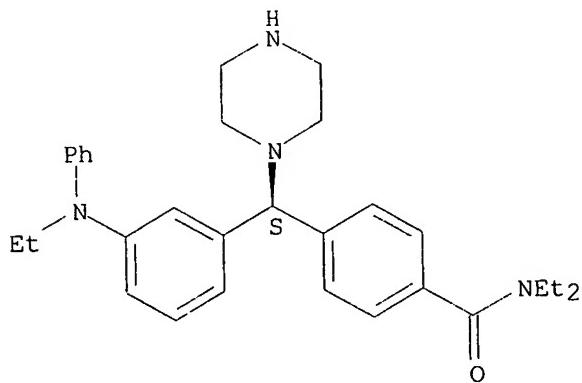


● x HCl

RN 691877-87-9 HCPLUS

CN Benzamide, N,N-diethyl-4-[(S)-[3-(ethylphenylamino)phenyl]-1-piperazinylmethyl]-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

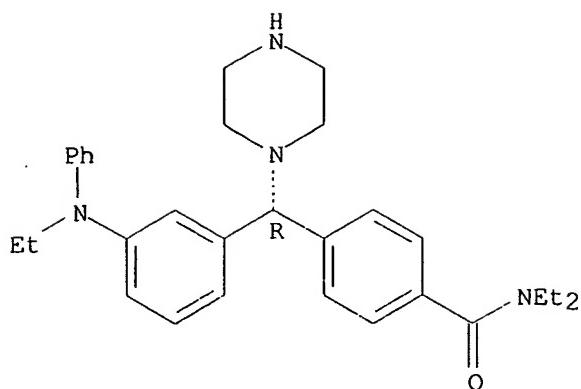


● x HCl

RN 691877-88-0 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-(ethylphenylamino)phenyl]-1-piperazinylmethyl]-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

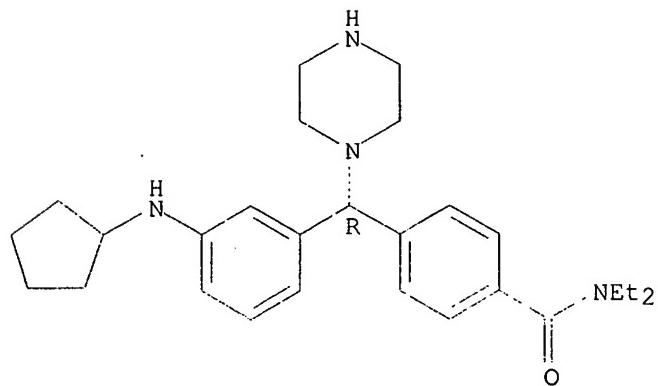


● x HCl

RN 691877-89-1 HCPLUS

CN Benzamide, 4-[(R)-[3-(cyclopentylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

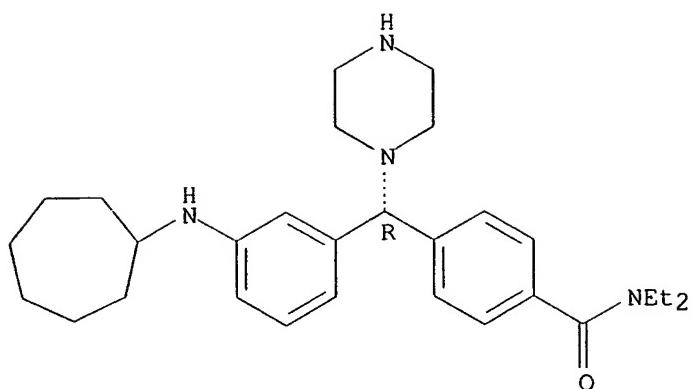
Absolute stereochemistry. Rotation (-).



RN 691877-90-4 HCPLUS

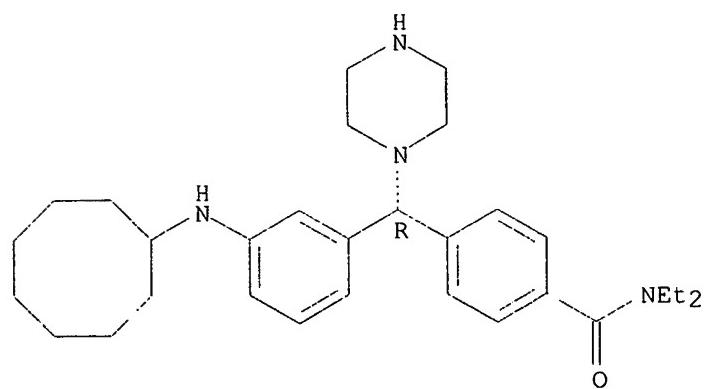
CN Benzamide, 4-[(R)-[3-(cycloheptylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



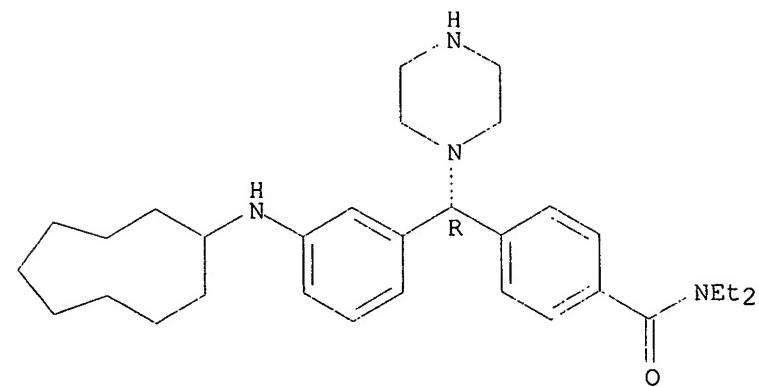
RN 691877-91-5 HCPLUS
 CN Benzamide, 4-[(R)-[3-(cyclooctylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 691877-92-6 HCPLUS
 CN Benzamide, 4-[(R)-[3-(cyclononylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

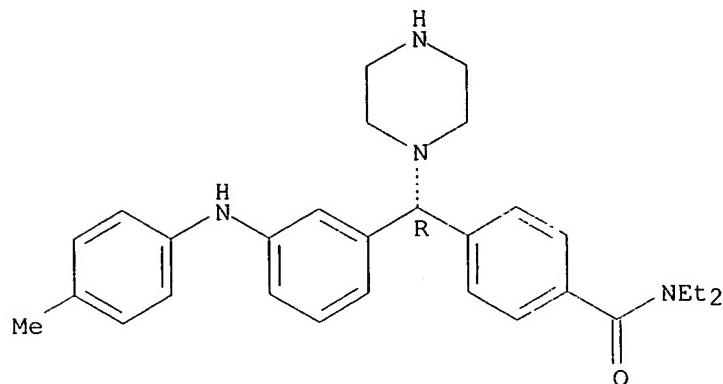
Absolute stereochemistry. Rotation (-).



RN 691877-94-8 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(4-methylphenyl)amino]phenyl]-1-piperazinylmethyl]-, hydrochloride (10:29) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

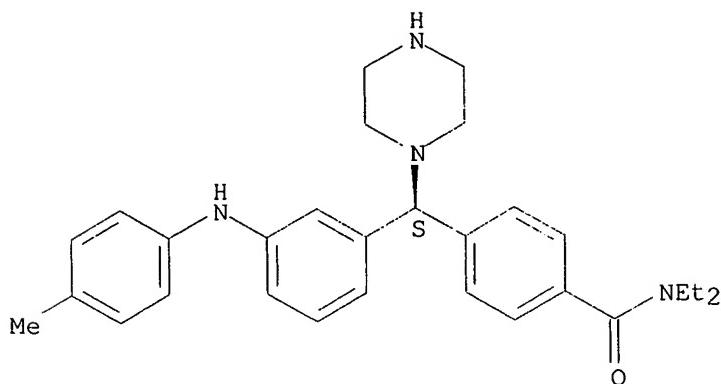


● 29/10 HCl

RN 691877-95-9 HCPLUS

CN Benzamide, N,N-diethyl-4-[(S)-[3-[(4-methylphenyl)amino]phenyl]-1-piperazinylmethyl]-, trihydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

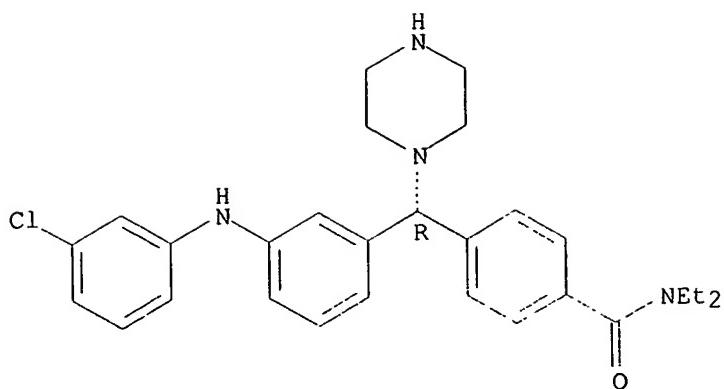


● 3 HCl

RN 691877-96-0 HCPLUS

CN Benzamide, 4-[(R)-[3-[(3-chlorophenyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl-, hydrochloride (10:29) (9CI) (CA INDEX NAME)

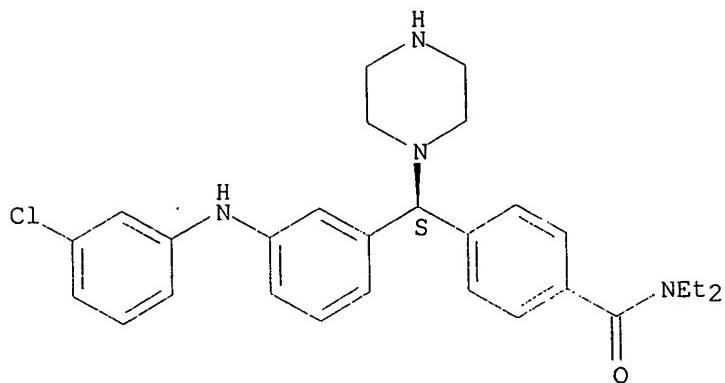
Absolute stereochemistry. Rotation (-).



●29/10 HCl

RN 691877-97-1 HCPLUS
 CN Benzamide, 4-[(S)-[3-[(3-chlorophenyl)amino]phenyl]-1-piperazinylmethyl]-
 N,N-diethyl-, hydrochloride (9CI) (CA INDEX NAME)

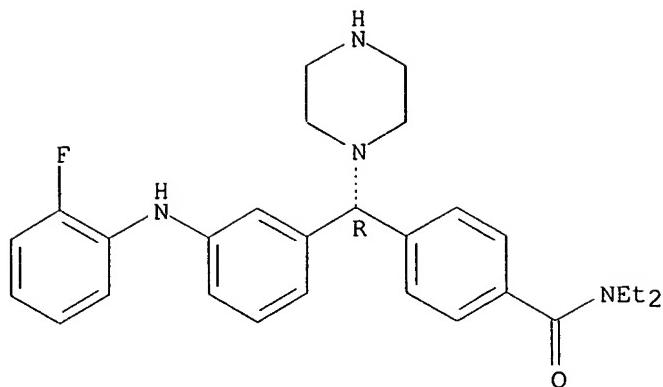
Absolute stereochemistry. Rotation (+).



●x HCl

RN 691877-98-2 HCPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-[3-[(2-fluorophenyl)amino]phenyl]-1-
 piperazinylmethyl]-, hydrochloride (10:29) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

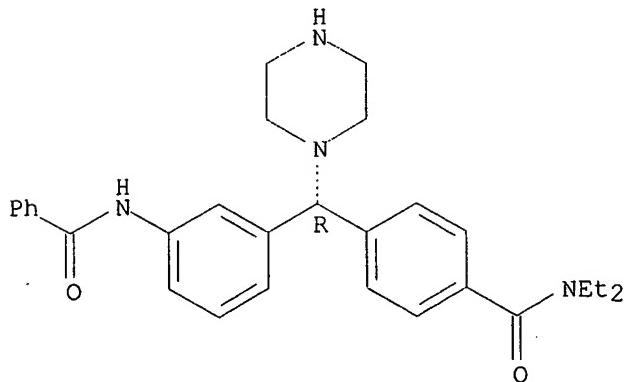


● 29/10 HCl

RN 691877-99-3 HCAPLUS

RN 35167-39-3 ACN 111-00-0
CN Benzamide, 4-[(R)-[3-(benzoylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

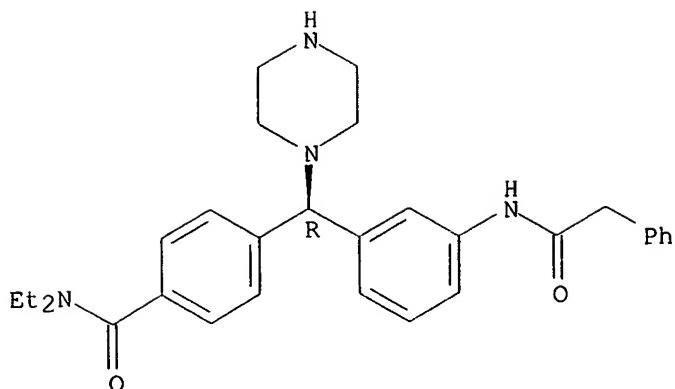
Absolute stereochemistry. Rotation (-).



RN 691878-00-9 HCAPLUS

CN Benzeneacetamide, N-[3-[(R)-4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]- (9CI) (CA INDEX NAME)

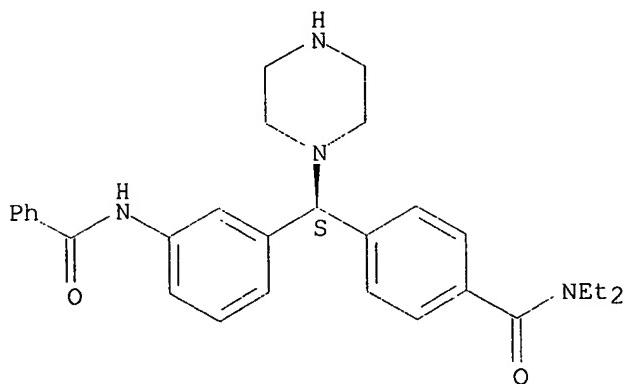
Absolute stereochemistry. Rotation (-).



RN 691878-01-0 HCAPLUS

RN 5310-31-0 **ICN**
CN Benzamide, 4-[{S}-[3-(benzoylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

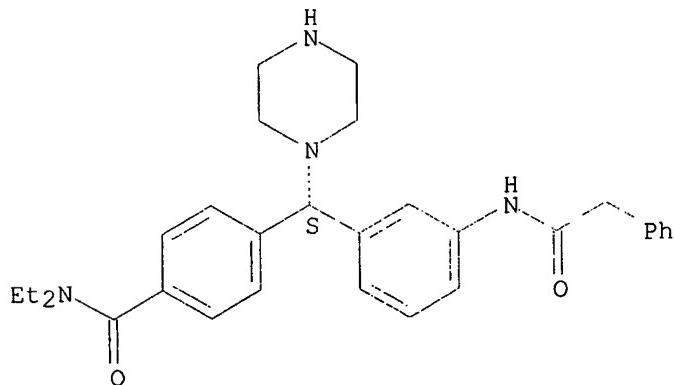
Absolute stereochemistry. Rotation (+).



RN 691878-02-1 HCAPLUS

5018-02-1 ACETYL
CN Benzeneacetamide, N-[3-[(S)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]- (9CI) (CA INDEX NAME)

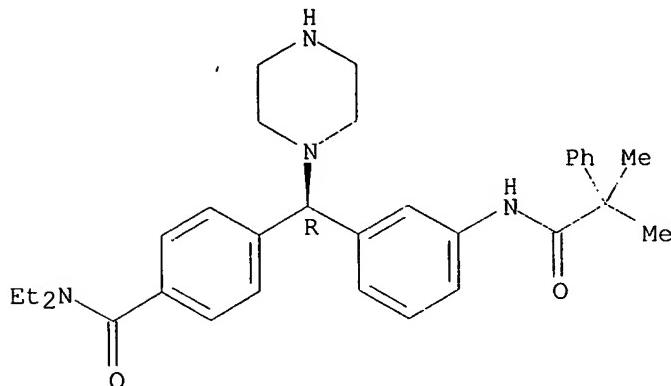
Absolute stereochemistry. Rotation (+).



RN 691878-03-2 HCPLUS

CN Benzeneacetamide, N-[3-[(R)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]- α , α -dimethyl- (9CI) (CA INDEX NAME)

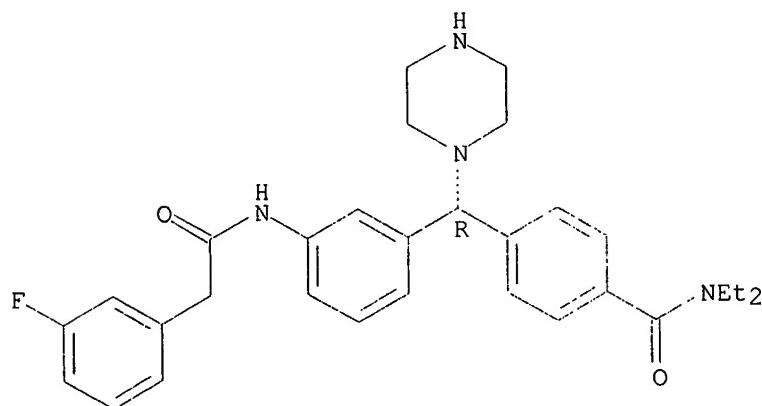
Absolute stereochemistry. Rotation (-).



RN 691878-04-3 HCPLUS

CN Benzeneacetamide, N-[3-[(R)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-3-fluoro- (9CI) (CA INDEX NAME)

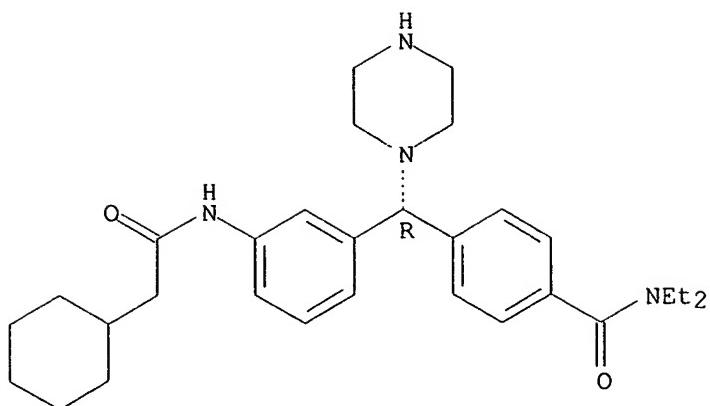
Absolute stereochemistry. Rotation (-).



RN 691878-05-4 HCPLUS

CN Benzamide, 4-[(R)-[3-[(cyclohexylacetyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

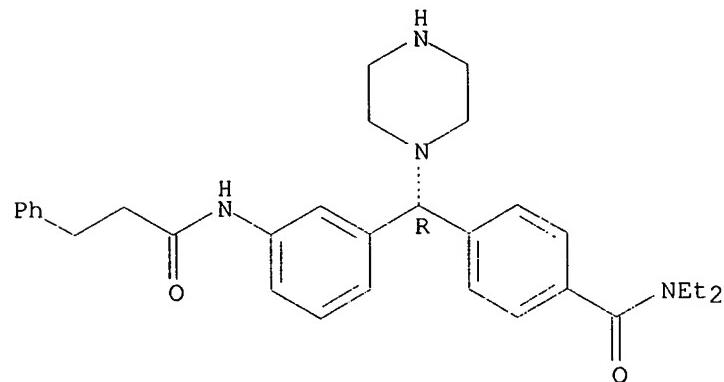
Absolute stereochemistry. Rotation (-).



RN 691878-07-6 HCPLUS

CN Benzenepropanamide, N-[3-[(R)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]- (9CI) (CA INDEX NAME)

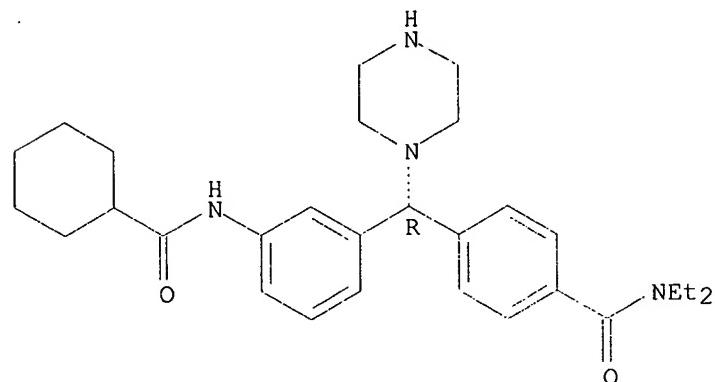
Absolute stereochemistry.



RN 691878-08-7 HCPLUS

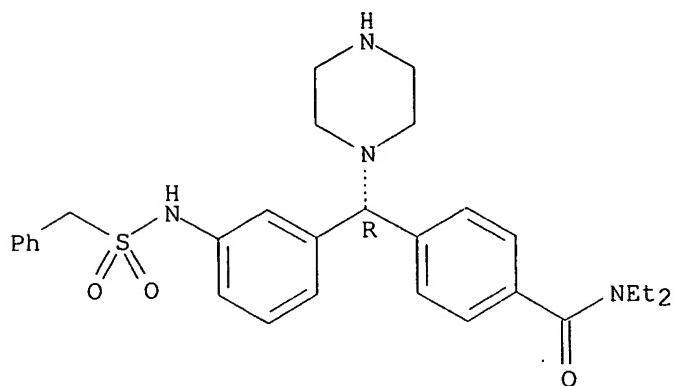
CN Benzamide, 4-[(R)-[3-[(cyclohexylcarbonyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



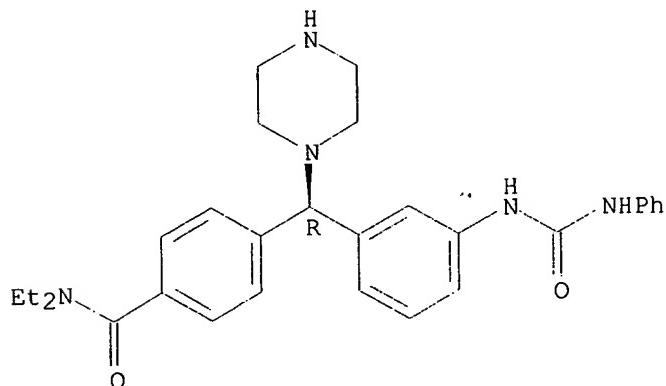
RN 691878-11-2 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-[3-[[phenylmethyl]sulfonyl]amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



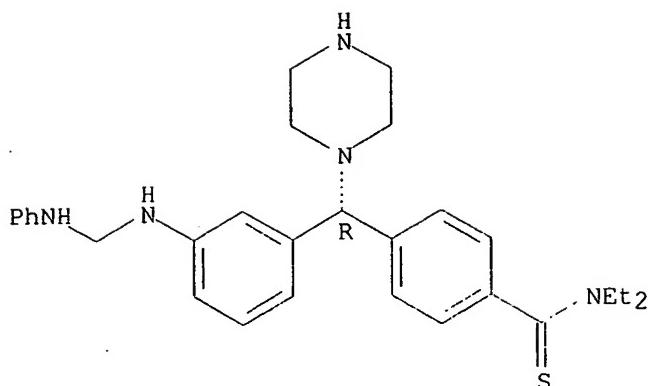
RN 691878-12-3 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-[3-[[phenylamino]carbonyl]amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 691878-13-4 HCAPLUS
 CN Benzenecarbothioamide, N,N-diethyl-4-[(R)-[3-[[phenylamino)methyl]amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

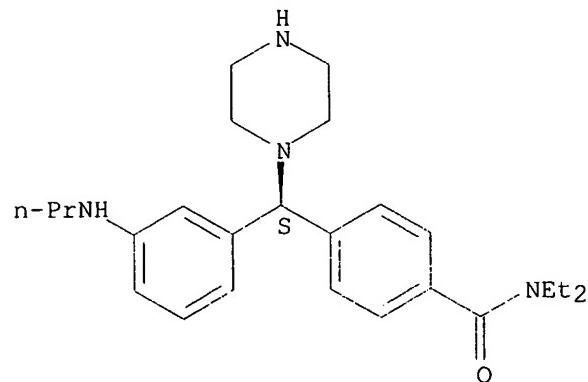
Absolute stereochemistry.



RN 691878-14-5 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-(propylamino)phenyl]methyl]-
(9CI) (CA INDEX NAME)

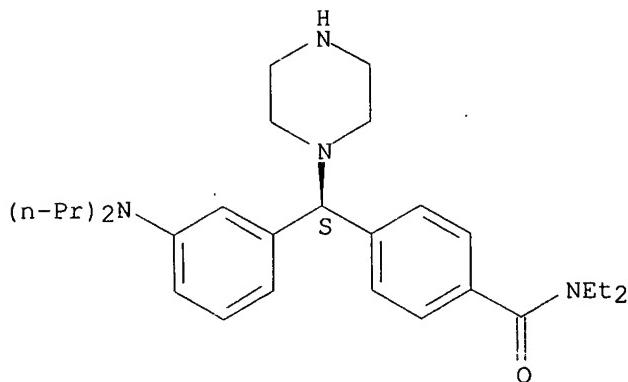
Absolute stereochemistry. Rotation (+).



RN 691878-15-6 HCAPLUS

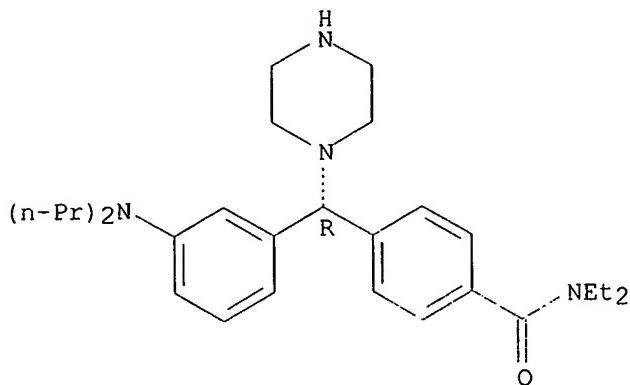
CN Benzamide, 4-[(S)-[3-(dipropylamino)phenyl]-1-piperazinylmethyl]-N,N-
diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



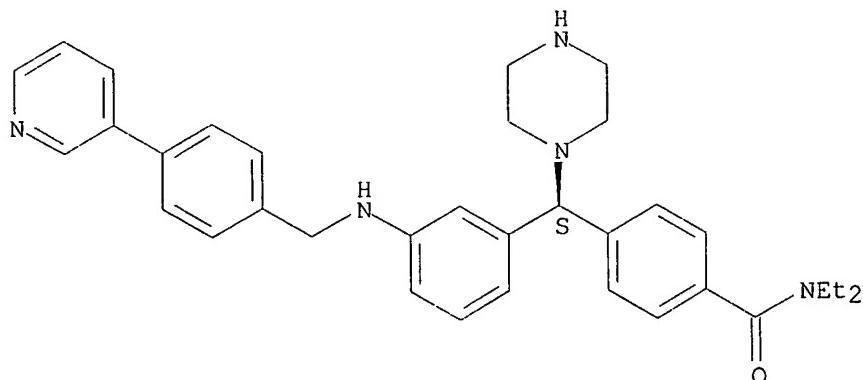
RN 691878-19-0 HCAPLUS
 CN Benzamide, 4-[(R)-[3-(dipropylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



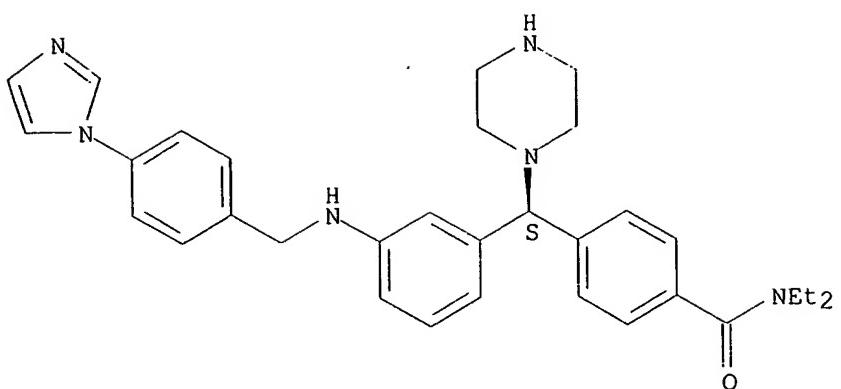
RN 691878-21-4 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-1-piperazinyl[3-[[4-(3-pyridinyl)phenyl]methyl]amino]phenyl]methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 691878-23-6 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-[3-[[4-(1H-imidazol-1-yl)phenyl]methyl]amino]phenyl]-1-piperazinylmethyl- (9CI) (CA INDEX NAME)

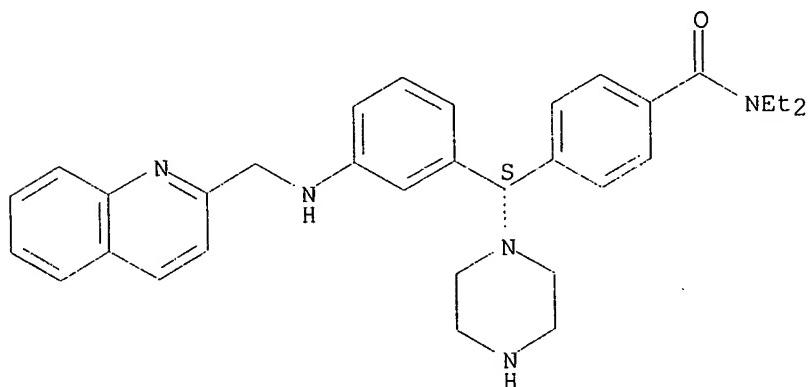
Absolute stereochemistry. Rotation (-).



RN 691878-25-8 HCAPLUS

RN 69187-23-6 (CA INDEX NAME)
CN Benzamide, N,N-diethyl-4-[*(S*)-1-piperazinyl[3-[*(2-*
quinolinylmethyl)amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

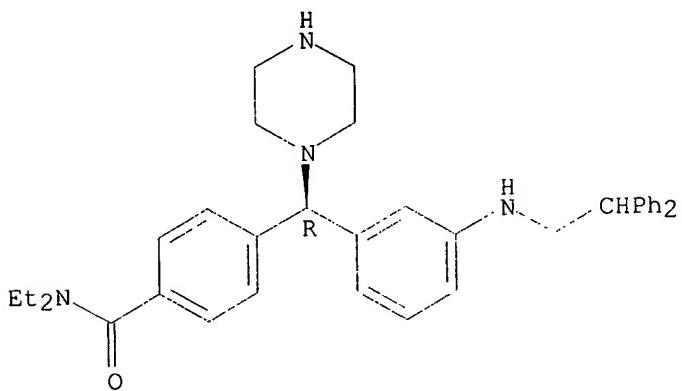
Absolute stereochemistry. Rotation (+).



BN: 691878-27-0 HCAPLUS

RN 6918-72-7 NCI-LIST
CN Benzamide, 4-[(R)-[3-[((2,2-diphenylethyl)amino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

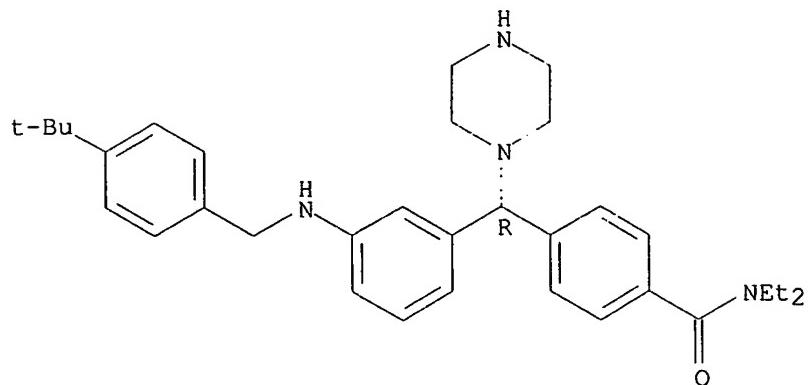
Absolute stereochemistry. Rotation (+).



RN 691878-29-2 HCPLUS

CN Benzamide, 4-[{(R)-[3-[[4-(1,1-dimethylethyl)phenyl]methyl]amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

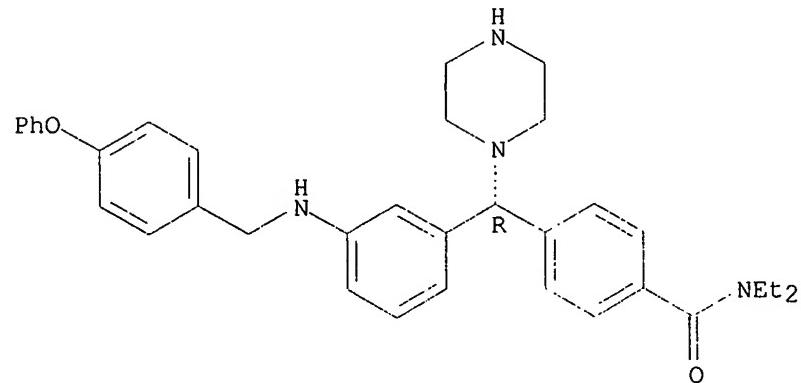
Absolute stereochemistry. Rotation (-).



RN 691878-31-6 HCPLUS

CN Benzamide, N,N-diethyl-4-[{(R)-[3-[(4-phenoxyphenyl)methyl]amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

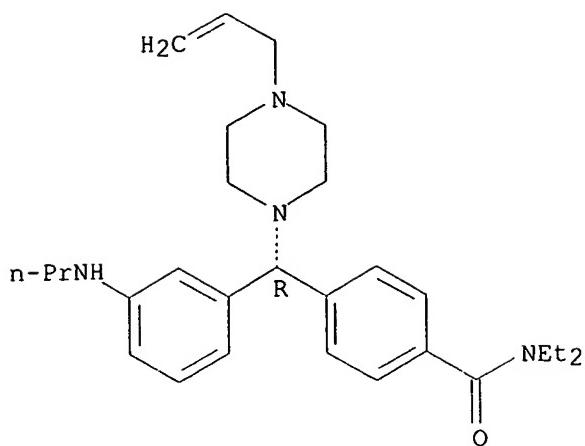
Absolute stereochemistry. Rotation (-).



RN 691878-33-8 HCPLUS

CN Benzamide, N,N-diethyl-4-[{(R)-[4-(2-propenyl)-1-piperazinyl][3-(propylamino)phenyl]methyl}- (9CI) (CA INDEX NAME)

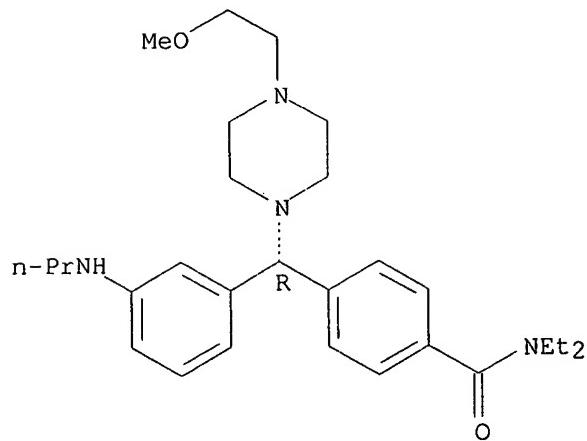
Absolute stereochemistry. Rotation (-).



RN 691878-36-1 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[4-(2-methoxyethyl)-1-piperazinyl][3-(propylamino)phenyl]methyl]- (9CI) (CA INDEX NAME)

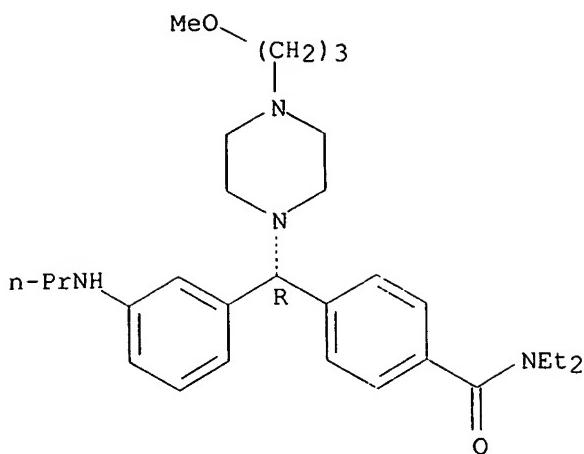
Absolute stereochemistry. Rotation (-).



RN 691878-37-2 HCPLUS

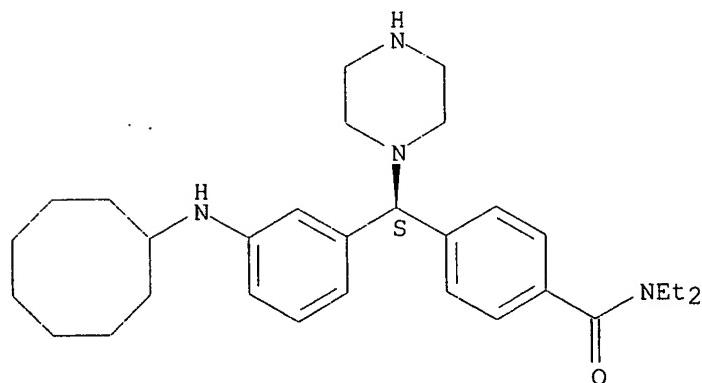
CN Benzamide, N,N-diethyl-4-[(R)-[4-(3-methoxypropyl)-1-piperazinyl][3-(propylamino)phenyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



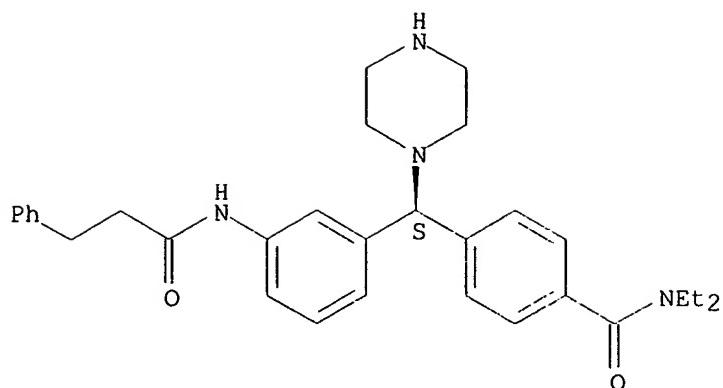
RN 691878-40-7 HCAPLUS
 CN Benzamide, 4-[(S)-[3-(cyclooctylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 691878-41-8 HCAPLUS
 CN Benzenepropanamide, N-[3-[(S)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]-, hydrochloride (10:29) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

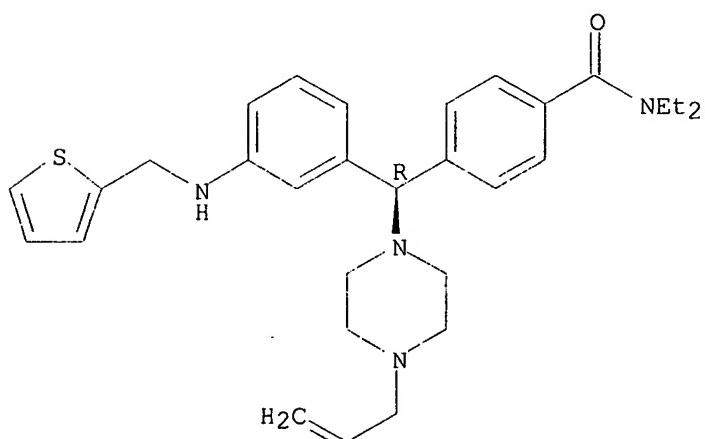


● 29/10 HCl

RN 691878-46-3 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[4-(2-propenyl)-1-piperazinyl][3-[(2-thienylmethyl)amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

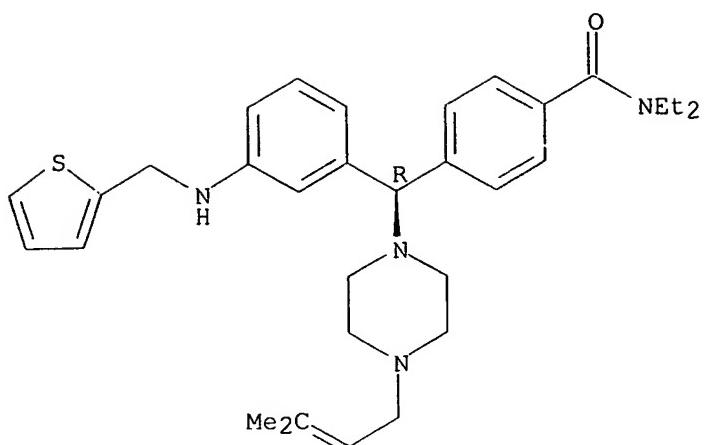
Absolute stereochemistry. Rotation (-).



RN 691878-47-4 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[4-(3-methyl-2-butenyl)-1-piperazinyl][3-[(2-thienylmethyl)amino]phenyl]methyl]- (9CI) (CA INDEX NAME)

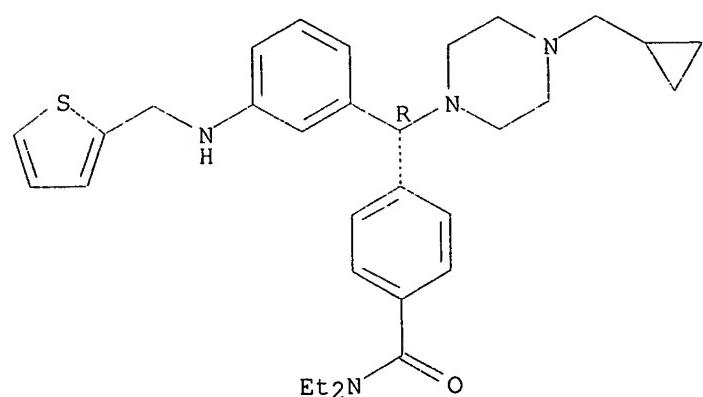
Absolute stereochemistry. Rotation (-).



RN 691878-48-5 HCPLUS

CN Benzamide, 4-[(R)-[4-(cyclopropylmethyl)-1-piperazinyl][3-[(2-thienylmethyl)amino]phenyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

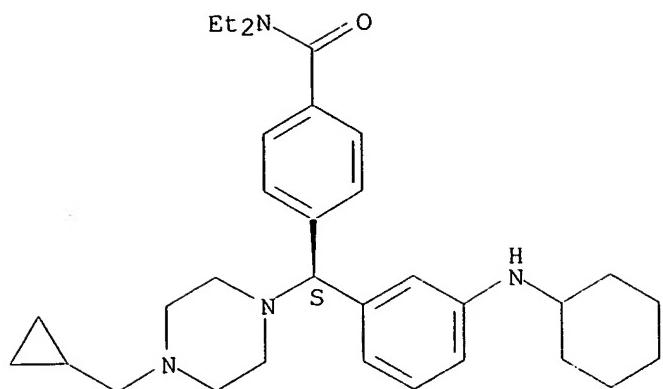
Absolute stereochemistry. Rotation (-).



RN 691878-49-6 HCPLUS

CN Benzamide, 4-[(S)-[3-(cyclohexylamino)phenyl][4-(cyclopropylmethyl)-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

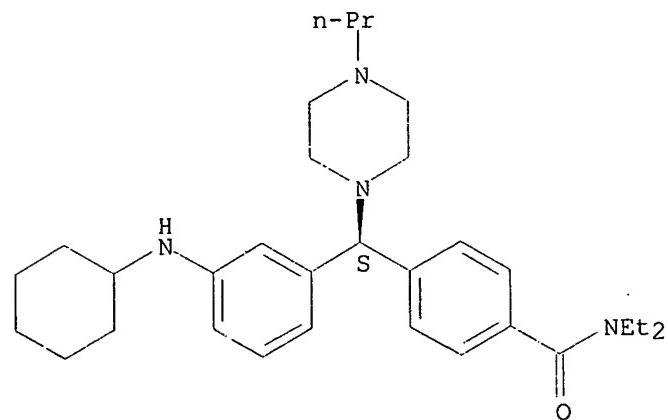
Absolute stereochemistry. Rotation (+).



RN 691878-50-9 HCPLUS

CN Benzamide, 4-[(S)-[3-(cyclohexylamino)phenyl](4-propyl-1-piperazinyl)methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

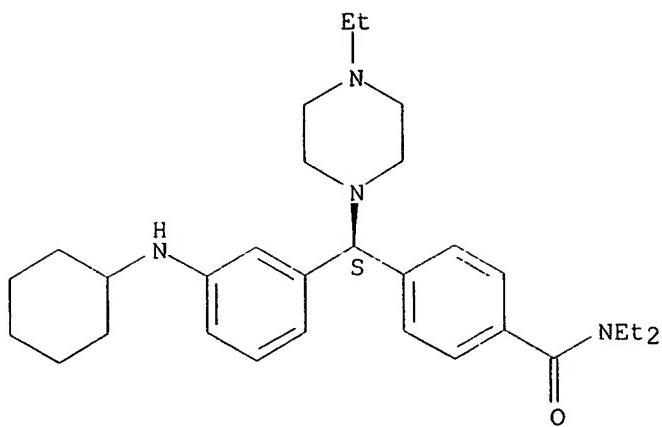
Absolute stereochemistry. Rotation (+).



RN 691878-51-0 HCPLUS

CN Benzamide, 4-[(S)-[3-(cyclohexylamino)phenyl](4-ethyl-1-piperazinyl)methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

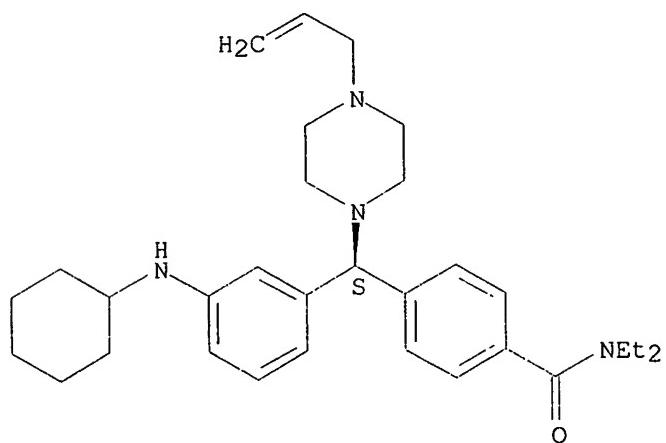
Absolute stereochemistry. Rotation (+).



RN 691878-52-1 HCPLUS

CN Benzamide, 4-[(S)-[3-(cyclohexylamino)phenyl][4-(2-propenyl)-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

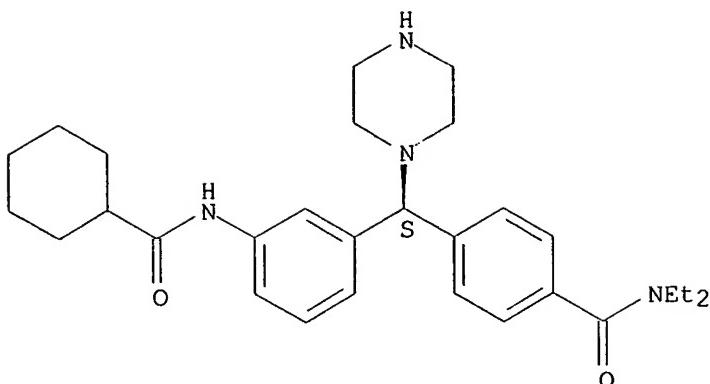
Absolute stereochemistry. Rotation (+).



RN 691878-53-2 HCPLUS

CN Benzamide, 4-[(S)-[3-[(cyclohexylcarbonyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

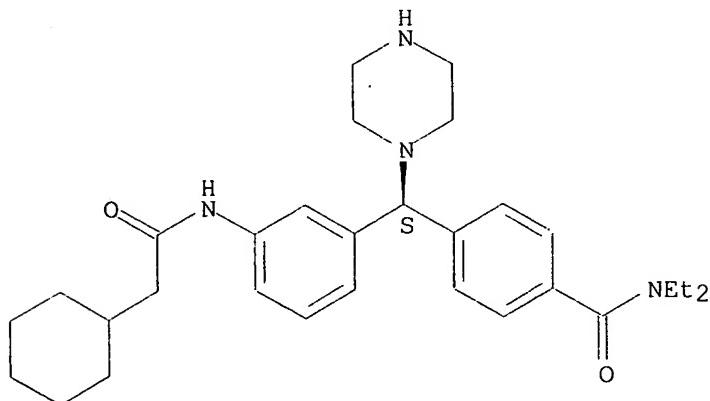
Absolute stereochemistry. Rotation (+).



RN 691878-54-3 HCPLUS

CN Benzamide, 4-[(S)-[3-[(cyclohexylacetyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

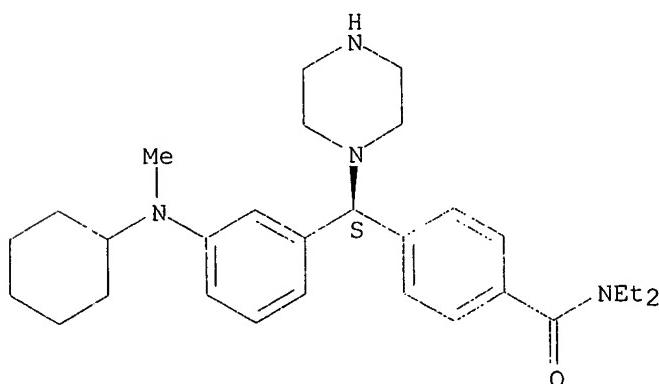
Absolute stereochemistry. Rotation (+).



RN 691878-55-4 HCPLUS

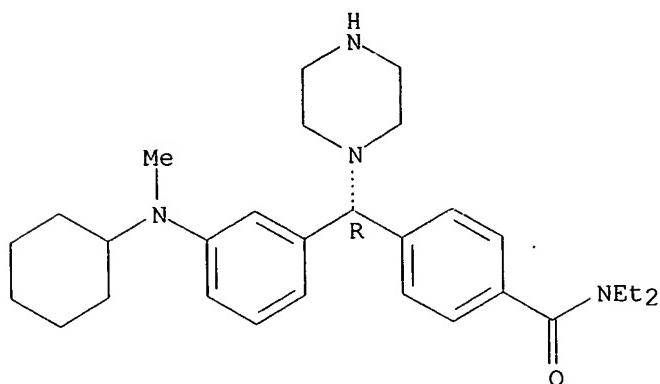
CN Benzamide, 4-[(S)-[3-(cyclohexylmethylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



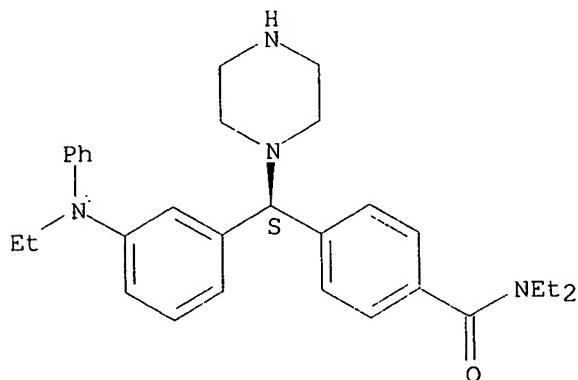
RN 691878-56-5 HCAPLUS
 CN Benzamide, 4-[(R)-[3-(cyclohexylmethylamino)phenyl]-1-piperazinylmethyl]-
 N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



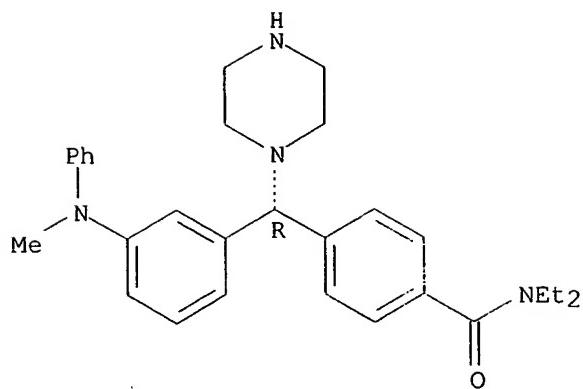
RN 691878-57-6 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-[3-(ethylphenylamino)phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 691878-58-7 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-[3-(methylphenylamino)phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

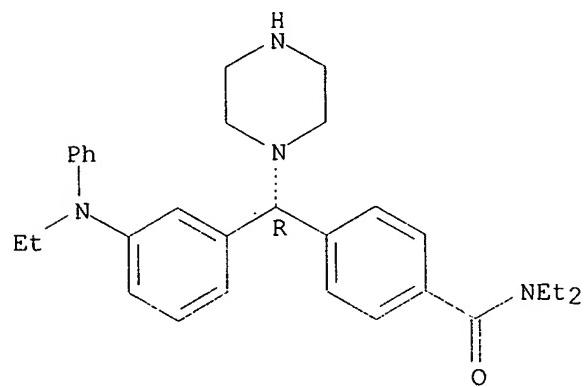
Absolute stereochemistry.



RN 691878-59-8 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-(ethylphenylamino)phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

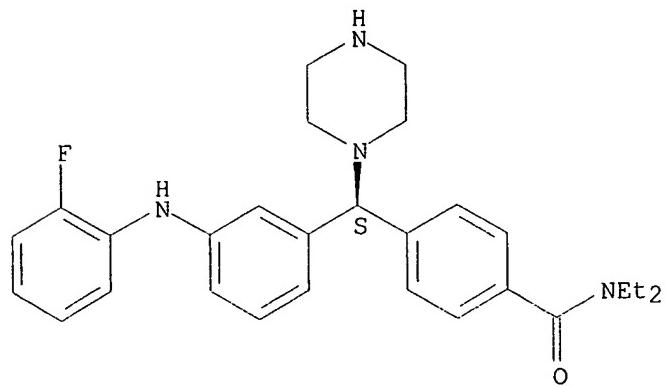
Absolute stereochemistry.



RN 691878-60-1 HCAPLUS

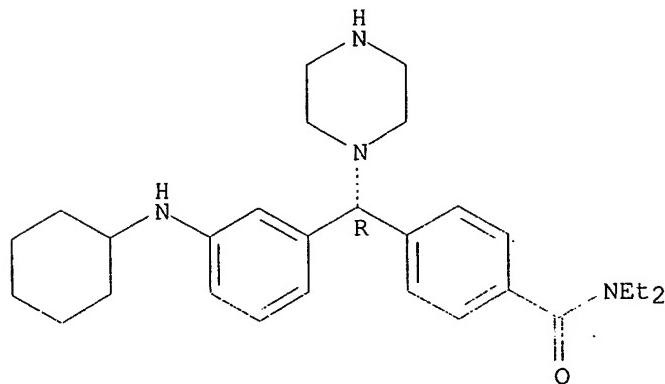
CN Benzamide, N,N-diethyl-4-[(S)-[3-[(2-fluorophenyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



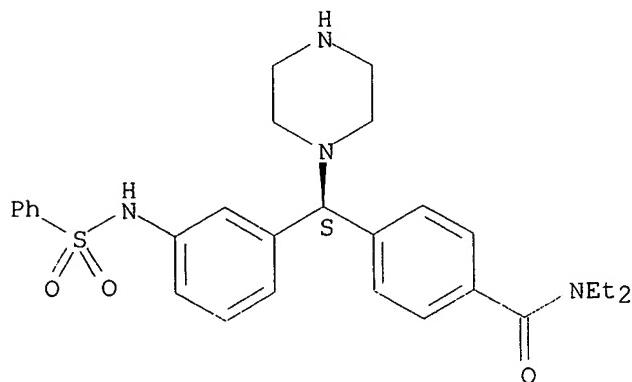
RN 691878-74-7 HCAPLUS
 CN Benzamide, 4-[(R)-[3-(cyclohexylamino)phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



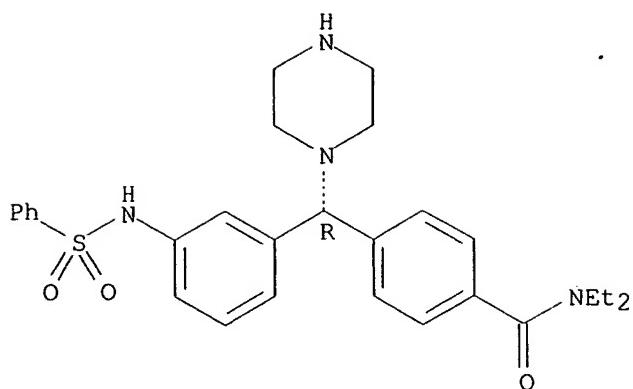
RN 691878-88-3 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(S)-[3-[(phenylsulfonyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 691879-16-0 HCAPLUS
 CN Benzamide, N,N-diethyl-4-[(R)-[3-[(phenylsulfonyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

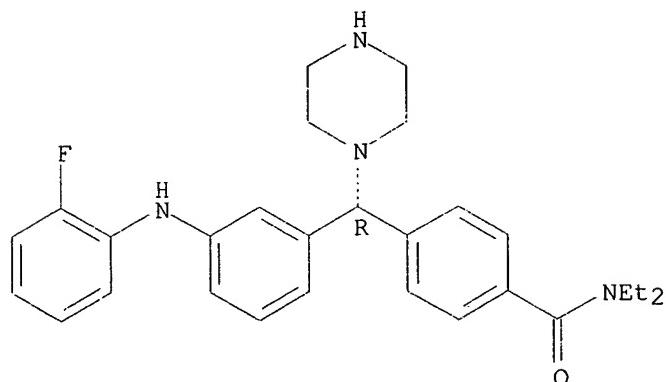
Absolute stereochemistry. Rotation (-).



RN 692726-52-6 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(2-fluorophenyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

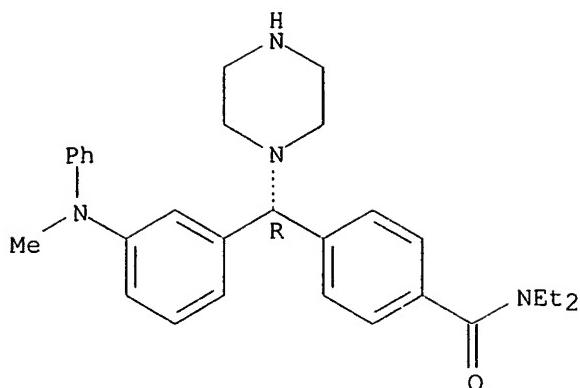
Absolute stereochemistry. · Rotation (+).



RN 693259-12-0 HCAPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-(methylphenylamino)phenyl]-1-piperazinylmethyl]-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

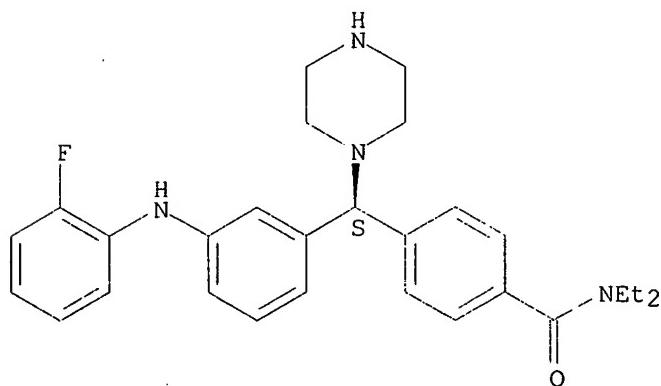


● x HCl

RN 693259-13-1 HCPLUS

CN Benzamide, N,N-diethyl-4-[(S)-[3-[(2-fluorophenyl)amino]phenyl]-1-piperazinylmethyl]-, trihydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

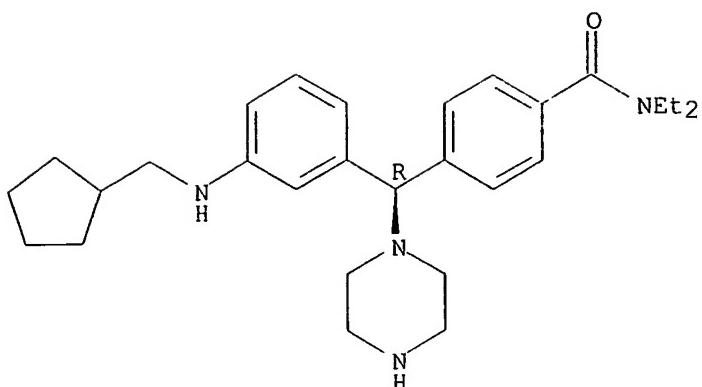


● 3 HCl

RN 693259-14-2 HCPLUS

CN Benzamide, 4-[(R)-[3-[(cyclopentylmethyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

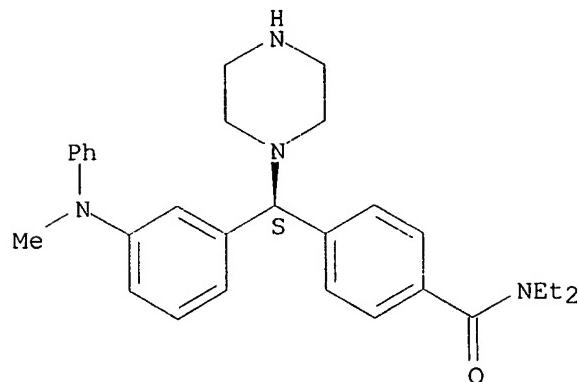
Absolute stereochemistry. Rotation (-).



RN 693259-15-3 HCPLUS

CN Benzamide, N,N-diethyl-4-[(S)-[3-(methylphenylamino)phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

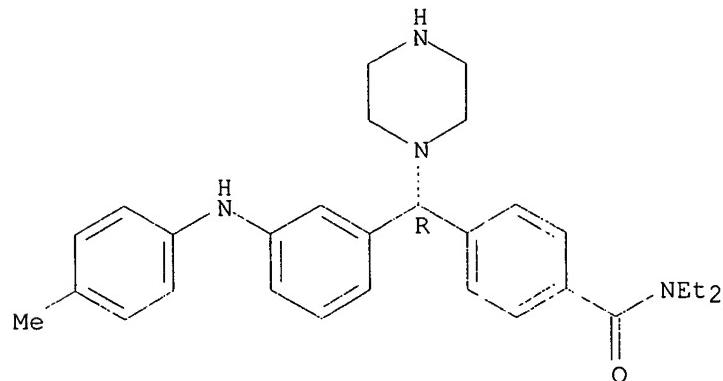
Absolute stereochemistry. Rotation (+).



RN 693259-16-4 HCPLUS

CN Benzamide, N,N-diethyl-4-[(R)-[3-[(4-methylphenyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

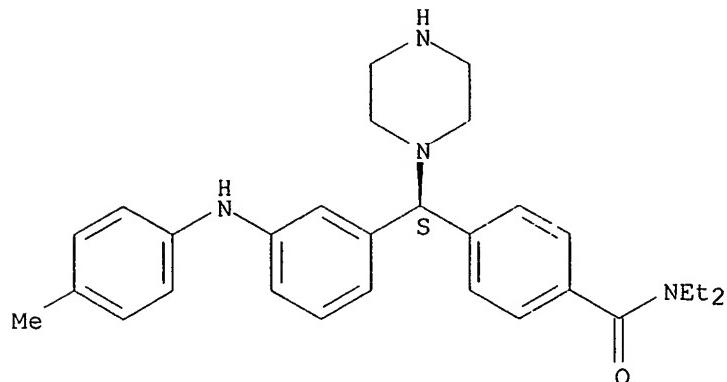
Absolute stereochemistry. Rotation (-).



RN 693259-17-5 HCPLUS

CN Benzamide, N,N-diethyl-4-[(S)-[3-[(4-methylphenyl)amino]phenyl]-1-piperazinylmethyl]- (9CI) (CA INDEX NAME)

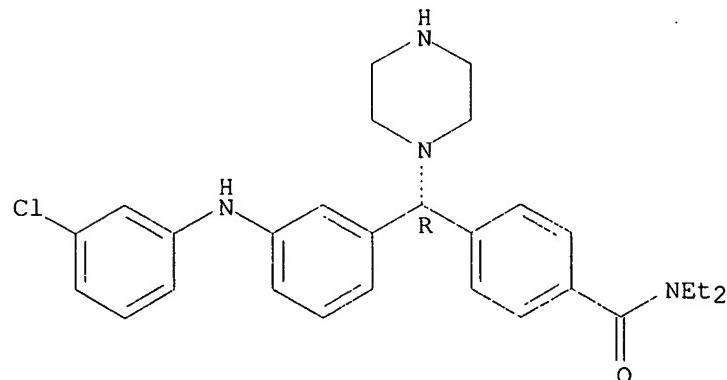
Absolute stereochemistry. Rotation (+).



RN 693259-18-6 HCPLUS

CN Benzamide, 4-[(R)-[3-[(3-chlorophenyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

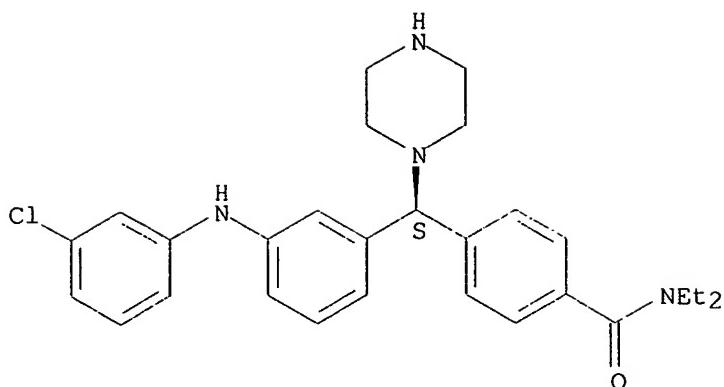
Absolute stereochemistry. Rotation (-).



RN 693259-19-7 HCPLUS

CN Benzamide, 4-[(S)-[3-[(3-chlorophenyl)amino]phenyl]-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

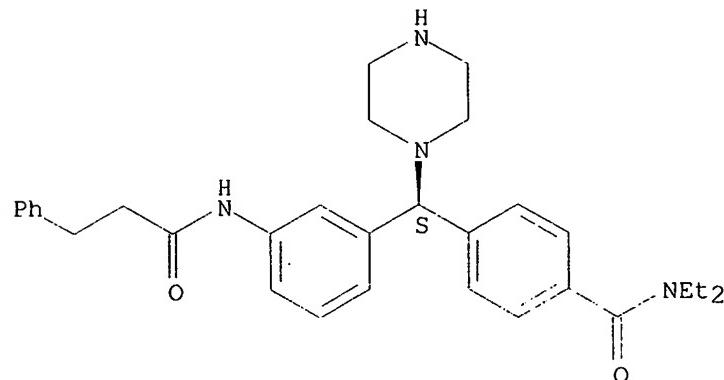
Absolute stereochemistry. Rotation (+).



RN 693259-20-0 HCAPLUS

CN Benzene propanamide, N-[3-[(S)-[4-[(diethylamino)carbonyl]phenyl]-1-piperazinylmethyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L6 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:412930 HCAPLUS

DOCUMENT NUMBER: 140:423707

TITLE: Preparation of 4-(phenylpiperazinylmethyl)benzamides for treatment of pain or gastrointestinal disorders

INVENTOR(S): Brown, William; Griffin, Andrew;

Plobeck, Niklas; Walpole, Christopher

PATENT ASSIGNEE(S): AstraZeneca AB, Swed.

SOURCE: PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004041800	A1	20040521	WO 2003-SE1703	20031105
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				

Prior Art

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
 GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
 LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
 OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
 TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
 BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
 ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
 TR, BF, BJ, CF, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 CA 2502733 AA 20040521 CA 2003-2502733 20031105
 AU 2003274884 A1 20040607 AU 2003-274884 20031105
 EP 1562922 A1 20050817 EP 2003-759164 20031105
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 BR 2003015998 A 20050920 BR 2003-15998 20031105
 JP 2006507296 T2 20060302 JP 2004-549772 20031105
 NO 2005002699 A 20050606 NO 2005-2699 20050606
 PRIORITY APPLN. INFO.: SE 2002-3300 A 20021107
 OTHER SOURCE(S): MARPAT 140:423707 WO 2003-SE1703 W 20031105
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

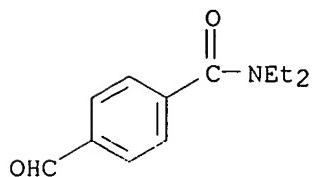
AB Title compds. I [wherein R1 = (un)substituted (hetero)aryl; R2 = H or (un)substituted alkyl, aryl, or heterocycl; or pharmaceutically acceptable salts, enantiomers, or mixts. thereof] were prepared as opioid δ receptor ligands. For example, 4-carboxybenzaldehyde was amidated with diethylamine using SOC12 in CH₂C₁₂ to give N,N-diethyl-4-formylbenzamide (90%). Coupling of the amide with 1-piperazinecarboxylic acid 1,1-dimethylethyl ester in the presence of benzotriazole in toluene, followed by reaction with 3-cyanophenylzinc iodide in THF, afforded 4-[(3-cyanophenyl)[4-[(diethylamino)carbonyl]phenyl]methyl]-1-piperazinecarboxylic acid 1,1-dimethylethyl ester. Deprotection of the piperazine (39%) using TFA in CH₂C₁₂ and alkylation (57%) with benzaldehyde in the presence of sodium triacetoxyborohydride in CH₂C₁₂ provided 3-[(4-[(diethylamino)carbonyl]phenyl)(4-benzylpiperazin-1-yl)methyl]benzonitrile. Conversion of the nitrile to the amide with KOH in t-BuOH and chiral HPLC separation of the enantiomers gave (-)-II (99% optical purity). In binding assays using human 293S cells expressing cloned human opioid receptors and neomycin resistance, (-)-II proved to be an effective δ receptor ligand (IC₅₀ = 0.26 nM) and showed some activity toward the κ (IC₅₀ = 112 nM) and μ (IC₅₀ = 7.7 nM) receptors. In functional assays, (-)-II demonstrated δ receptor agonist activity by activating the binding of GTP to G-proteins. Thus, I and their pharmaceutical compns. are useful in therapy, in particular for the treatment of gastrointestinal disorders or the management of pain (no data).

IT 58287-77-7P, N,N-Diethyl-4-formylbenzamide 77350-52-8P,
 4-Iodo-N,N-diethylbenzamide 691358-43-7P, 4-[(3-Cyanophenyl)[4-[(diethylamino)carbonyl]phenyl]methyl]-1-piperazinecarboxylic acid 1,1-dimethylethyl ester 691358-44-8P, 4-[(3-Cyanophenyl)piperazin-1-ylmethyl]-N,N-diethylbenzamide 691358-45-9P, 3-[[4-[(Diethylamino)carbonyl]phenyl](4-benzylpiperazin-1-yl)methyl]benzonitrile 691358-46-0P,
 3-[[4-[(Diethylamino)carbonyl]phenyl][4-(2-furylmethyl)piperazin-1-yl]methyl]benzonitrile 691358-47-1P, 3-[[4-

[(Diethylamino)carbonyl]phenyl]hydroxymethyl]benzoic acid methyl ester
691358-48-2P, 4-[(4-[(Diethylamino)carbonyl]phenyl)[3-(methoxycarbonyl)phenyl]methyl]-1-piperazinecarboxylic acid
 1,1-dimethylethyl ester **691358-49-3P**, 3-[(4-[(Diethylamino)carbonyl]phenyl)[4-(phenylmethyl)-1-piperazinyl]methyl]benzoic acid methyl ester **691358-50-6P**,
 3-[(4-[(Diethylamino)carbonyl]phenyl)[4-(phenylmethyl)-1-piperazinyl]methyl]benzoic acid
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; preparation of (phenylpiperazinylmethyl)benzamides as δ receptor agonists for treatment of pain or gastrointestinal disorders)

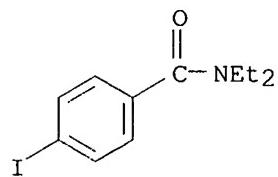
RN 58287-77-7 HCPLUS

CN Benzamide, N,N-diethyl-4-formyl- (9CI) (CA INDEX NAME)



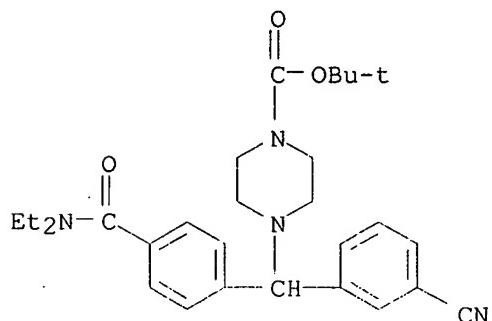
RN 77350-52-8 HCPLUS

CN Benzamide, N,N-diethyl-4-iodo- (9CI) (CA INDEX NAME)



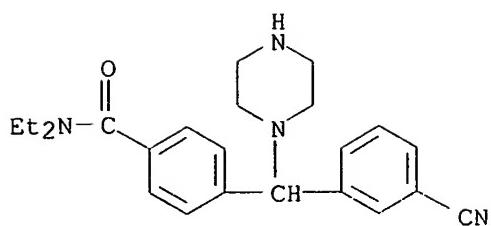
RN 691358-43-7 HCPLUS

CN 1-Piperazinecarboxylic acid, 4-[(3-cyanophenyl)[4-[(diethylamino)carbonyl]phenyl]methyl]-, 1,1-dimethylethyl ester (9CI)
 (CA INDEX NAME)

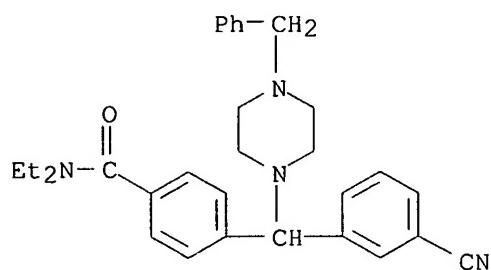


RN 691358-44-8 HCPLUS

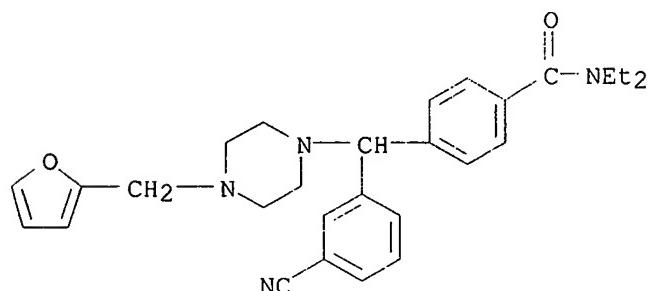
CN Benzamide, 4-[(3-cyanophenyl)-1-piperazinylmethyl]-N,N-diethyl- (9CI) (CA INDEX NAME)



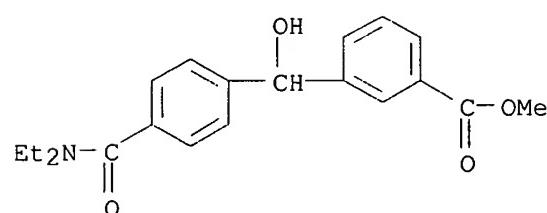
RN 691358-45-9 HCAPLUS
 CN Benzamide, 4-[(3-cyanophenyl)[4-(phenylmethyl)-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)



RN 691358-46-0 HCAPLUS
 CN Benzamide, 4-[(3-cyanophenyl)[4-(2-furanylmethyl)-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

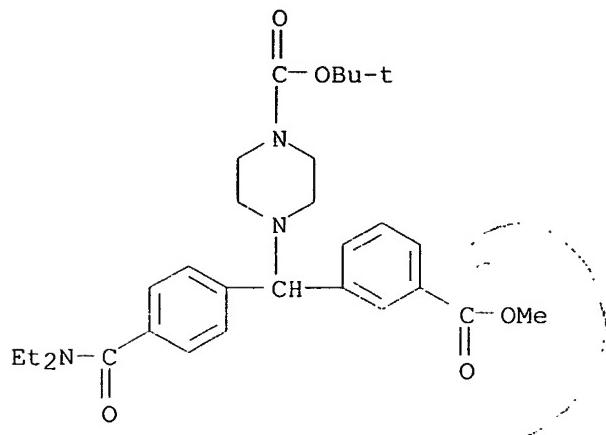


RN 691358-47-1 HCAPLUS
 CN Benzoic acid, 3-[(4-[(diethylamino)carbonyl]phenyl]hydroxymethyl]-, methyl ester (9CI) (CA INDEX NAME)



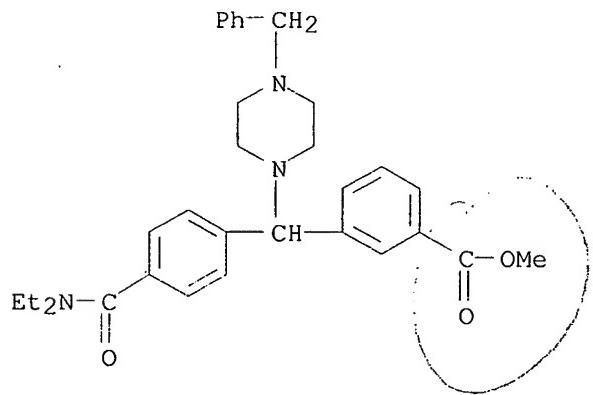
RN 691358-48-2 HCPLUS

CN 1-Piperazinecarboxylic acid, 4-[(4-[(diethylamino)carbonyl]phenyl)[3-(methoxycarbonyl)phenyl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



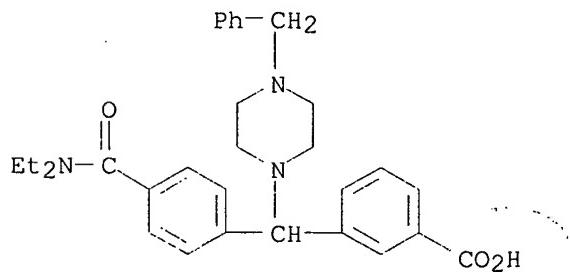
RN 691358-49-3 HCPLUS

CN Benzoic acid, 3-[(4-[(diethylamino)carbonyl]phenyl)[4-(phenylmethyl)-1-piperazinyl]methyl]-, methyl ester (9CI) (CA INDEX NAME)



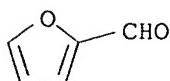
RN 691358-50-6 HCPLUS

CN Benzoic acid, 3-[(4-[(diethylamino)carbonyl]phenyl)[4-(phenylmethyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)

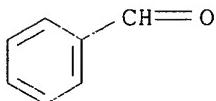


IT 98-01-1, 2-Furaldehyde, reactions 100-52-7,
 Benzaldehyde, reactions 109-89-7, Diethylamine, reactions
 619-66-9, 4-Carboxybenzaldehyde 1711-02-0, 4-Iodobenzoyl
 chloride 52178-50-4, 3-Carbomethoxybenzaldehyde
 57260-71-6, 1-Piperazinecarboxylic acid 1,1-dimethylethyl ester
 288309-53-5, (3-Cyanophenyl)zinc iodide
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of (phenylpiperazinylmethyl)benzamides as δ
 receptor agonists for treatment of pain or gastrointestinal disorders)

RN 98-01-1 HCPLUS
 CN 2-Furancarboxaldehyde (9CI) (CA INDEX NAME)



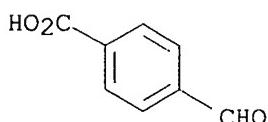
RN 100-52-7 HCPLUS
 CN Benzaldehyde (7CI, 8CI, 9CI) (CA INDEX NAME)



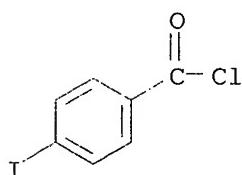
RN 109-89-7 HCPLUS
 CN Ethanamine, N-ethyl- (9CI) (CA INDEX NAME)



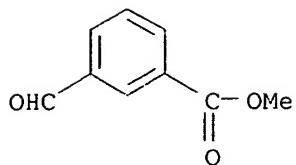
RN 619-66-9 HCPLUS
 CN Benzoic acid, 4-formyl- (9CI) (CA INDEX NAME)



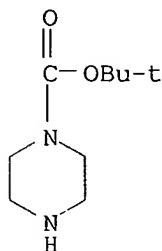
RN 1711-02-0 HCPLUS
 CN Benzoyl chloride, 4-iodo- (9CI) (CA INDEX NAME)



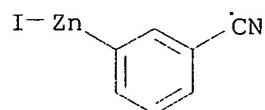
RN 52178-50-4 HCPLUS
 CN Benzoic acid, 3-formyl-, methyl ester (9CI) (CA INDEX NAME)



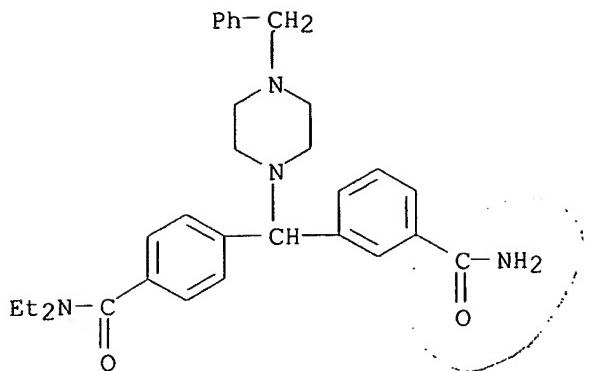
RN 57260-71-6 HCAPLUS
 CN 1-Piperazinecarboxylic acid, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



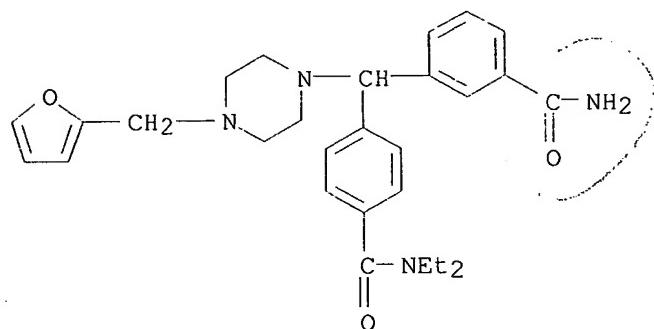
RN 288309-53-5 HCAPLUS
 CN Zinc, (3-cyanophenyl)iodo- (9CI) (CA INDEX NAME)



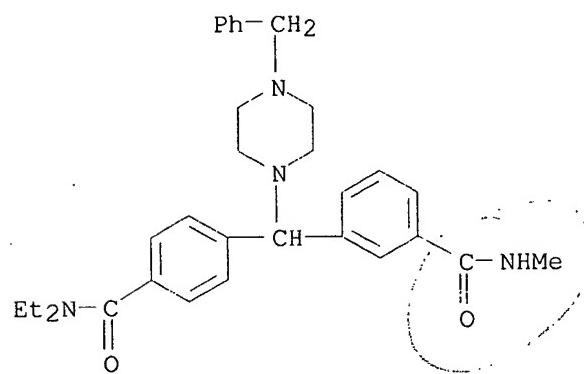
IT 691358-51-7P, 3-[(4-[(Diethylamino)carbonyl]phenyl](4-benzylpiperazin-1-yl)methyl]benzamide 691358-56-2P, 3-[(4-[(Diethylamino)carbonyl]phenyl)[4-(2-furylmethyl)piperazin-1-yl)methyl]benzamide 691358-62-0P, 3-[(4-[(Diethylamino)carbonyl]phenyl)[4-(phenylmethyl)-1-piperazinyl)methyl]-N-methylbenzamide
 RL: PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
 (δ receptor agonist; preparation of (phenylpiperazinylmethyl)benzamides as δ receptor agonists for treatment of pain or gastrointestinal disorders)
 RN 691358-51-7 HCAPLUS
 CN Benzamide, 4-[[3-(aminocarbonyl)phenyl][4-(phenylmethyl)-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)



RN 691358-56-2 HCPLUS
 CN Benzamide, 4-[[3-(aminocarbonyl)phenyl][4-(2-furanyl methyl)-1-piperazinyl]methyl]-N,N-diethyl- (9CI) (CA INDEX NAME)



RN 691358-62-0 HCPLUS
 CN Benzamide, N,N-diethyl-4-[[3-[(methylamino)carbonyl]phenyl][4-(phenylmethyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



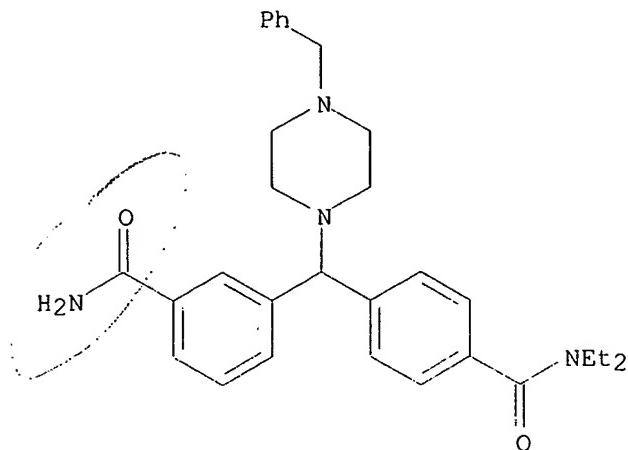
IT 691883-84-8P 691883-85-9P 691883-86-0P
 691883-87-1P 691883-88-2P 691883-89-3P
 RL: PAC (Pharmacological activity); PUR (Purification or recovery); SPN
 (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study);
 PREP (Preparation); USES (Uses)

(δ receptor agonist; preparation of (phenylpiperazinylmethyl)benzamides as δ receptor agonists for treatment of pain or gastrointestinal disorders)

RN 691883-84-8 HCPLUS

CN Benzamide, 4-[(3-(aminocarbonyl)phenyl)[4-(phenylmethyl)-1-piperazinyl]methyl]-N,N-diethyl-, hydrochloride (5:16), (-)- (9CI) (CA INDEX NAME)

Rotation (-).

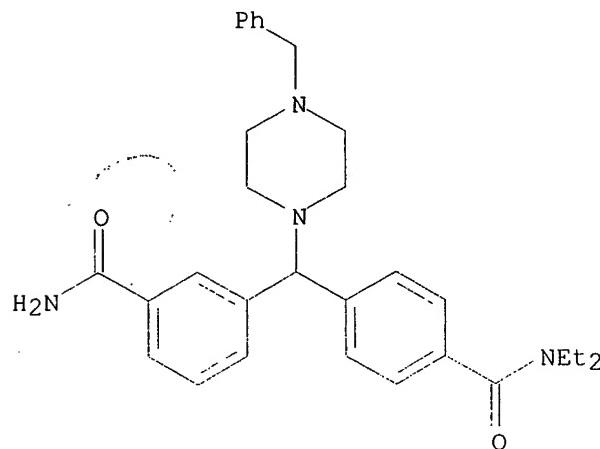


●16/5 HCl

RN 691883-85-9 HCPLUS

CN Benzamide, 4-[(3-(aminocarbonyl)phenyl)[4-(phenylmethyl)-1-piperazinyl]methyl]-N,N-diethyl-, hydrochloride (10:31), (+)- (9CI) (CA INDEX NAME)

Rotation (+).

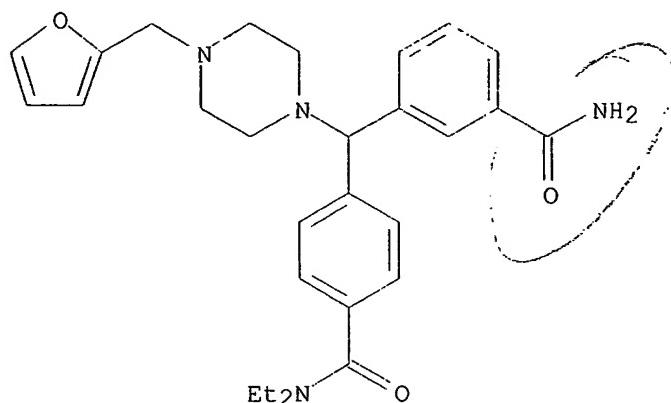


●31/10 HCl

RN 691883-86-0 HCPLUS

CN Benzamide, 4-[3-(aminocarbonyl)phenyl][4-(2-furanyl methyl)-1-piperazinyl]methyl-N,N-diethyl-, hydrochloride (5:13), (-)- (9CI) (CA INDEX NAME)

Rotation (-).

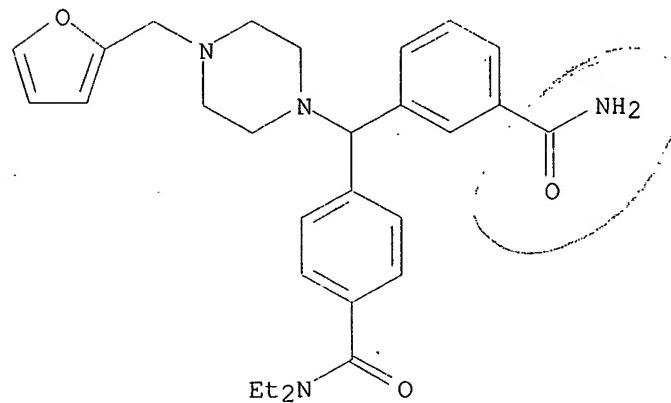


●13/5 HCl

RN 691883-87-1 HCPLUS

CN Benzamide, 4-[3-(aminocarbonyl)phenyl][4-(2-furanyl methyl)-1-piperazinyl]methyl-N,N-diethyl-, hydrochloride (10:7), (+)- (9CI) (CA INDEX NAME)

Rotation (+).



●7/10 HCl

RN 691883-88-2 HCPLUS

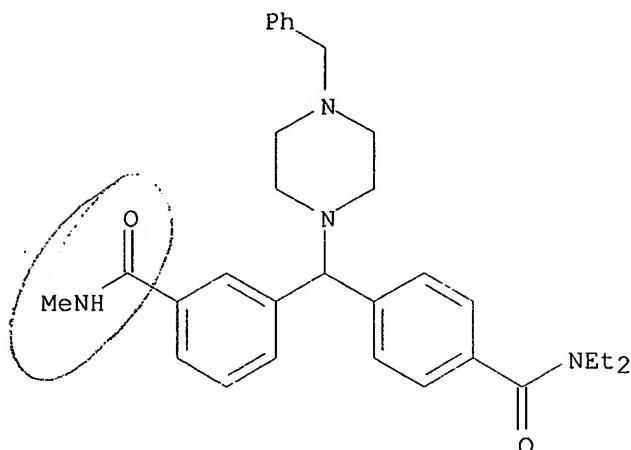
CN Benzamide, N,N-diethyl-4-[3-[(methylamino)carbonyl]phenyl][4-(phenylmethyl)-1-piperazinyl]methyl-, (-)-, trifluoroacetate (5:8) (9CI)

(CA INDEX NAME)

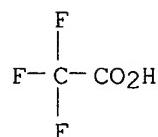
CM 1

CRN 691358-63-1
CMF C31 H38 N4 O2

Rotation (-).



CM 2

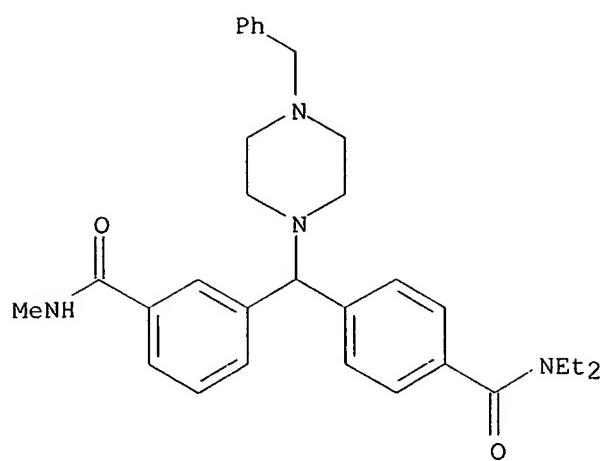
CRN 76-05-1
CMF C2 H F3 O2

RN 691883-89-3 HCPLUS
 CN Benzamide, N,N-diethyl-4-[[3-[(methylamino)carbonyl]phenyl][4-(phenylmethyl)-1-piperazinyl]methyl]-, (+)-, trifluoroacetate (5:8) (9CI)
 (CA INDEX NAME)

CM 1

CRN 691358-64-2
CMF C31 H38 N4 O2

Rotation (+).



CM 2

CRN 76-05-1
CMF C2 H F3 O2